

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

{ STAMPED.....SIXPENCE.
{ UNSTAMPED..FIVEPENCE

Buller sett with the present working was suggested. I presume the writer is not aware that Mr. Richard Davey, seven years since, produced an elaborate statement, showing that to erect engines, and fork the old mine, would entail an expense of not less than 10,000*l.*, and the matter then dropped. In addition to this, it is proposed that Copper Hill sett be amalgamated with Buller. Now, although I am one who believes that Copper Hill is a better sett than Buller, have, as yet, no special, and I think, no well-founded reasons, for I think that for the present the two ventures will find it their interest to continue their efforts in the present part and to their south ground—i. e., as you a week or two since said, cross-cut south deep and by that means drain and work Old Buller Mine.

Next month it will be four years since the last dividend was paid, the time when we followed the services of Capt. Brown, of whom the late Mr. Stephen Davey spoke to the following effect:—"We are about to lose the help of one to whom we are deeply indebted—one to whom we may ascribe the discovery of the stock we are now so happily engaged in, and who has, in other respects, assured us to the contrary." After speaking so flatteringly of Capt. Brown, an adventurer said—"If Capt. Brown is so valuable a servant, why let him leave? It is better to have a good servant at any price, than to lose a dividend mine for the sake of a few pounds salary." I know, as a fact, that Capt. Brown has since expressed his opinion that Wheel Buller might have continued his divi-

the mine has been worked to the 160, and is now about to be reworked. Some mineralogical evidence of the productive character of the district, as it will be seen that but few mines have failed to yield a profit at shallow depths; and it seems inexplicable that such strong and well-defined lodes (than which better do not exist in the country) should have been allowed to remain with such a shallow exploration. But it has, unfortunately,

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The report of the agents was read, as follows :—

part.—The CHAIRMAN said the cost-sheets would show that there were ample tin work operations carried on already; and as far as he was concerned he would never consent to spend one penny upon the western ground or Wheal Gorland. It was a very

GREAT WHEAL VOR UNITED MINING COMPANY.

The report of the committee of management was read, as follows:—

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ground, but did not lie to the 157 end; this end was found parallel to it, standing some feet north, and also in good tin ground. The slide had divided the lode, but each part was productive. It had always been found that wherever this intervention took place it was permeated with tin, and produced good stamping work. In the west, towards Edward's shaft, some considerable improvement had taken place, but the great feature was that the lode at Ivey's shaft was still strong, which supported the feeling he entertained—looking at the strength of the lode below the slide at Ivey's shaft, and the lode being stronger at Ivey's shaft—that it gave great promise for a western ground. Although the present signs of the lode were different from those at Ivey's shaft, and up to the west end of the last meeting, yet the prospects of the mine continued exceedingly good, in addition to which they had very large reserves, sufficient to last them for a very considerable time. Therefore, although there had been some little changes, the committee did not apprehend any great deterioration in the general value of the mine. (Hear, hear). He hoped he was not too gloomy in thus dwelling upon these unimportant variations in the value of the lode, because personally he did not attach any importance to them, but, following the course he had always adopted, he would not shrink from pointing out the disadvantages as well as the advantages resulting from the deve-

Mining Correspondence.

BRITISH MINES.

BEDFORD CONSOLS.—Capt. Mitchell, March 29: The ground in the middle adit level cross-cut north still continues hard, being mixed with capel and spar, spotted with mundle and copper ore. The ground in the cross-cut south is moderately easy, and fair

REDFORD UNITED.—J. Phillips, March 22: The stope in the 180 west will produce 150 tons of ore per fathom in the 115 west and worth on an average 3 tons of ore per fathom. We are driving by the side of the lode in the 103 west. The stope in the 90 west will each yield 2 tons of ore per fathom. There is no alteration in the 80 west, on the south side, or in the 68 east. The stope in the 58, 47, and 35 east are yielding about 14 tons each of ore per fathom. We are at present fixing a plunger-lift at the bottom of the 35 east and will be able to make complete by the end of this week. There has been no sink down in the 23 east.

BEDOL-AUR.—March 22: The men which were driving the end east on Golden Shoedole have been put to take down the lead in the stope north of Thomas's winze: we hope to get 1 ton from here by another week. Spencer's winze, sinking below the 70, is poor, and yielding but little lead, although we have a very promising ledge. In the cross-cut west of stope we have cut a branch about 4 in. wide, composed of clay, spar, and stone of lead ore; we shall continue the drive, as this is not the branch we expected to cut. Our surface operations in dressing are stopped on account of the frost, which is severe.

BILLINS.—E. Frank Mar. 23. There is no change to notice in the engine-shaft line last report; it is now 8 fms. 5 ft. 6 in. below the 70. We have not yet cut the hole in driving the cross-cut north in the 70 east, but expect to do so in a few days. We have four men engaged cutting ground in the 70 lodge, in order to get everything ready to put the skip down to the 80 as soon as possible after the shaft has been completed to that depth. A pick in the 70 west by four men will produce 6 cwt. per fm.; also one by six men will produce 1½ ton per hour. There are two other pitches, one in the 70 east and another in the 70 west, that will produce 1 ton a solid. We are getting a narrative well planned and another ready for the next issue.

BOSCAWEN.—R. Lee, March 18: No change to notice in the 80, driving west of Hunter's shaft, since last report. No lode taken down in the 80, east of samp-win, for the past week. The lode in the 80, driving west of said winz, is worth 6¢ per fm. The lode in the stope in bottom of the 70, east of samp-winz, is worth 18¢ per fathom. The lode in the stope in bottom of the 70, west of No. 2 winz, is worth 13¢ per fm. The lode in the stope in back of the 70, west of Hunter's shaft, is worth full 22¢ per fm. No change to notice in the 70, driving east of said winz. The lode in the 70, driving east from Hallenbasse's, is producing good stones of rich quality copper, and of a very promising character. We have taken up the 9-in. lift from the samp-win, and put a 12-in. one in its place, which is working well; this will enable us to keep constantly at work in the bottom of the mine except we should have a breakage.

BOTTLE. -J. Trevilion, March 23: The engine-shaft is sunk full 7 fms. below the 36; the ground is favourable, and to all appearances of a good description for producing lead. The 26 end continues large, and very similar as when reported on last, still worth 3 cwt. of lead per fm. The stope in the back is worth 3 cwt. of lead per fm. I hope to complete the shaft to the 36 in about five or six weeks, when we shall drive to a cross-cut east to cut the lodes, which probably will take us another five weeks to do after we commence the cross-cut. The good ore is going on as usual on the dressing floors, and the good quality of silver-lead ore for sale before the next account.

BOTTLE HILL. -J. Eddy, March 23: The lode in the different stops is producing about the same quality tinstuff as it has for some time past. I am sorry to say the frost has set in as severe as to stop all surface operations.

BRONFLOYD.—Thasas Kemp, March 23: We have cut through to the north wall if the lode in the 52, west of cross-cut; the lode proves to be poor, and we must now consider we have ascertained the extent of the deposit of ore in that direction. The men are now preparing to put in stulls in the back of this level for future stops. No change in any other department of the mine. We sampled, yesterday, 55 tons of good quality ore, on sale the 31st.

BRONFLOYD.—J. J. McALL, March 23: Simmons's shaft is looking much more promising than we have before seen it, and by all appearance it is very likely to turn out some ore very soon.

BRYN GWIGIO.—Tŷwans, March 32. The lode in the engine-shaft sinking below the 102, is small and unproductive; the limestones, however, is getting lighter in colour the 102 east is letting out more water, and the lode much more promising, though without lead. In the 90 west the lode is 1 foot wide, spotted with lead ore and a good deal of blende; the rise in the back of the 90 east is within 4 or 5 feet of boiling to the 85, and in very promising ground for lead ore, worth 15 cwt. per fm. ; after this is holed it will ventilate the eastern part of the mine, and be of great advantage in working the runs of ore eastward. There is no change in the ditches to notice since the last report.

in the 75 m. level etc. The different points likely to improve for lead ore soon are at the engine-shaft sinking below the 102 east, which will soon, we expect, cut the run of ore seen in the 90 and the 90 east, for the ore ground over this level; all these places are worked with a full number of men, and I anticipate some good results shortly.

BRYNTAL—Jas. Roach, March 25: I have ascertained to-day that the 30 west is driven 3 ft. from the engine shaft 3 ft. under the 20; at this point the lode has been cut, and from appearances I believe we are now entering a continuation of the deposit of ore wrought on in the level above; we are now saving all the lode carried in driving. The 30 east is looking favourable for the production of lead ore; the lode contains a great deal of carbonate of lime, and small quantities of carbonate of barites, also small pieces of lead ore.

CALSTOCK CONSLS.—W. B. Collom, March 21: The lode in the driftage west of the engine-shaft will yield 1½ ton of ore per fathom, and worth 37¢ per fathom. In driving east from the engine-shaft, the lode is 45 feet in the first 1 foot, and then the end, in this level, we are getting near a cross-course.—South Cross-cut: There has been nothing done as yet on the lode recently cut; the western side of the cross-course, the men being engaged in driving east through the cross-course to cut the lode on the eastern side. In the Danescomb lode west there is no alteration.

CARADON CONSLS.—W. Rich, March 21: In the cross-cut south we have strings of copper and muncie intermixed with the granite. The ground, on the whole, is of the

CASTLE CORNWALL. - R. P. Goldsworthy, March 22: We have faked the water at the fathoms below the 80. In loading down the south part of the lode in the 80 we have broken tinstuff of quality. I brought up a sample of it yesterday, which produced 1 1/2 cwts. of tin to 100 sack (14 gallons). We have broken good stone of tin from the side in the 80 west. Our shaftmen will complete the skip-road to the 80 to-morrow, when we shall commence to discharge tinstuff from thence. Our men are making good progress in their several bargains.

CASTLE CORNWALL. - J. Perry, March 21: The following is my re-

No. 1, has intersected the lode, with a back about 30 yards. A shaft has been sunk on the lode from surface to communicate with it; both ends of this shaft are at present being stoped, and the lode is generally from 2 to 3 ft. wide. In the north-east end we have excavated about 80 fathoms of the lode, during which we struck upon several small branches of visible gold. We have also stope 12 or 15 fathoms of the lode in the north-west end, and the lode showed a very promising appearance, and where it continued to yield occasionally some very good gold, with the pyrites, which was not so much as in No. 2 cross-cut, but sometimes, after it intersected the lode, the levels have been driven on it in both ends. In the north-east end the lode has been followed for a distance of 22 fathoms, and the appearance of the forebrest, the vein being about 2 ft. wide, is very promising. In the end of this level a rise has been made to communicate with the furthest point of the stope, north-east of the shaft, previously

mentioned. By making this communication, we had in object not only proving the ground, but also putting the mine in a position by which we could raise an ample quantity of off in a fortnight, and thus be enabled to work the mine to the full extent of its capacity. The position of the lode is also very favourable, the quartz being of a honeycomb nature, which never fails to produce visible gold in this mine. The lode in the other direction—south-west—has been followed for a distance of nearly 9 fathoms from the cross-cut; the lode is in the forebreast, and has been for some time rather disturbed and undefined. From the district of the lode we have now reached the level of the top of the quartz, and we are quite entitled to contain about 100 tons of ore. The reduction works, I am glad to say, are in the forward state; the severity of the weather for some time past has greatly impeded us. The 50-ft. water-wheel is already completed, and the machine-house is also in good progress, as well as the launders for the ore.

the water-wheel. We are at present entirely engaged in making the sluicings down the right side of the mine, and in constructing a new sluicing around the water-wheel, so constructed as to add eight more stamp-heads if required, and most of it is now completed. The water-wheel is now in operation, and the sluicing has been arrived at the mine, and is partly fixed. If the weather continues fine, I sincerely hope that by the beginning of May we shall be in a position to commence stamping at the rate of 50 or 60 tons per week, and that the produce will prove highly satisfactory. We shall also immediately commence making catch-pits to collect the slimes, and a new sluicing around the mill, the object of the latter being to raise the water to a level above the sluicing, and to commence a new adit level about 10 fathoms deeper than the present level, close by the reduction works. The gold produced last week was 4 ozs. 14 dwts. 10 grs., from 18 cwt. of lode stuff. The total quantity of gold obtained from the mine is 187 ozs. 9 dwts. 13 grs., from 38 tons 9 cwt. of lode stuff.

will commence immediately. Portions of the engine are being delivered on the mine, and no time will be lost in getting into a working order. Work at the shaft will be resumed on Sunday or Monday. The engine was stopped by frost, and so continued until this morning. During the time the water was in put the men to open the side west, in the 20. At Dolven the side has been again improved, and I have every reason to believe that when taken down the whole shaft will have a productive one. Per mail east you will perceive a sample of the

Chester, March 21: In the engine-shaft, sinking below the level of the adit, the ground is favourable, water little, and the engine still working well. No other change to report for the week.

CONNORRREE.—Capt. Bishop, March 18 : Brown's lode, in the deep adit, is very wide, and highly charged with sulphur, but with less quartz. There is no alteration in the composition of the ore at this point. The dip of the lode is about 60° N. E. from the south level. In the 74, east of engine-shaft, our prospect is improving; it yields a greater quantity of best-class sulphur ore. In the 54, west of engine-shaft, on the whole, the copper lode is much the same. In the 45, west of engine-shaft, the black shale has been reached, and the copper is abundant in small quantities, and the sulphur is

described in my last article, is without much change. In the 18th end, east and west of Field's shaft, there is no material change in the character or yield of copper and sulphur for the week. In the 10th, east of Kempton's shaft, the lode is getting wider, and producing good class copper ore, of various descriptions, and indicates well for this new part of the lode. The 12th end, east of the same shaft, is also getting wider, and the stope on the east slopes on the great copper and other lodes, each point of the operations steadily maintaining its productiveness, and the yield for sulphur, containing a small percentage for copper, zinc, lead and silver, is better.

CORNBUTT.—T. B. Flynn, J. King, March 28: The 70, driving east on the great northern lode, and the 71, driving west on the same lode, improved this week; the stope on the same lode, west of the end, is looking well—indeed, there is the best work in this stope I ever saw. In the mine before, and we are now raising good quantities of rich tin from it; we

have another slope finer west in this level, on the same side, while a younger brother slope is opening up on the middle side in this level, and will advise you in future reports as to what prospects. In the 60 we have six men working on the same level; east of cross-cut from this level slope is opening up well, and we are getting some good work for the stamps from it. This level has been worked with water and no more water reported. Everything is going on well, and our sales this month will be a good sum over the cost—in fact, the mine was never before looking so well as at present.

CORVALLIS, Ore., March 29.—The ground in the engine-shaft at the rate of 3 ft. per week. In the 80, driven by Mr. P. O'Connor, sinking at the rate of 3 ft. per week. In the 90, driven by

east on Dumping lode, the lode is 3 ft. wide, the south part of which produces saving work for copper ore. We expect the rise over the 30, west of engine-shaft, will be communicated with the 20 some time in the present week, when tribute ground will be laid open. The ground in the 20 fm. level cross-cut, toward the Curtia's lode, is speedy for driving through.

CUDRA.—Francis Puckey, A. Candy, March 22: Walker's shaft is sunk 12 fms. below the 106. We intend sinking the shaft 6 feet deeper for tip-plate, and fork, before we cross-cut the lode in the 117. In the 106, west of the same shaft, we have put up a rise, and communicated with the winze sinking below the 30, which has well ventilated that level. In the 106 fathom level and west we are driving on the north, or the part of the lode, which is full 6 feet wide, composed of quartz, pebbles, iron, and tin, worth for the latter 184. per fathom. In the western stopes, in the back of this level, the lode is 30 feet wide, and worth 182. per fathom. The lode in the middle stopes is 15 feet wide, and worth 127. per fathom. In the eastern stopes the lode is 4 feet wide, and worth 77. per fathom. In the winze sinking below the 105, west of the shaft, we are only carrying about 6 feet of the south part of the lode, which is looking very promising, and is worth 201. per fathom. In the 75 west we have cross-cut through the lode, which is 35 feet wide. The south part of the lode is composed of capel and iron; the north part, 2 or 3 feet wide, is producing good saving work for tin. In the stopes in the back of this level, and west of the winze, the lode at the present time is a little disordered by a south branch crossing the lode. The lode is still 6 feet wide, and worth 101. per fathom. In the stopes in the back of the 60 west the lode is 6 feet wide, composed of a beautiful pebble, muddle, and tin, worth for the latter 101. per fathom.

CWMBYR.—March 17: In the 30, driving west, the lode is 3 ft. wide, yielding 1 ton of lead ore and 2 tons of blende per fm. In No. 1 stopes, west of winze, the lode is 2 ft. wide, yielding 1 ton of lead ore and 1 ton of blende per fathom. In No. 2 stopes, east of winze, the lode is 3 ft. wide, yielding 12 cwt. of lead per fm. In the 30, driving east, the lode is 2 ft. wide, composed of spar, blende, and hard clay-slate. In the 20, driving west, the lode is 2 ft. wide, of spar and hard clay-slate, with stones of ore occasionally. The dressing department is going on well. We intend to sample 20 tons of lead ore in nine or ten days.

CWM ERFYN.—March 21: The lode in the shallow adit level, going east of boundary, is 3 ft. wide, and worth 1 1/4 ton of lead ore per fathom. The lode in the winze sinking below the shallow adit level is 4 ft. wide, and worth 1 1/4 ton of lead ore per fm. The deep adit level, going east of the boundary, has very much improved since last report; the lode in the present end is 5 ft. wide, and worth 2 tons of lead ore per fm.; there are 30 fms. of ground between this and the shallow adit level, and 50 fms. of back to the surface. The lode in the different stopes over the back of the deep adit level varies from 3 to 5 ft. wide, and will yield on an average 1 ton of lead ore per fm. The lode in the 10, west of the engine-shaft, is 1 ft. wide, composed of clay-slate, carbonaceous clay, and spots of muddle; the lode in the same level, east of the boundary, is 2 feet wide, with spots of lead ore, and looking promising. The lode in the rise over the back of this level, which is within 7 fms. of the present end, is 2 yards wide, and worth 1 1/4 ton of lead ore per fathom; this is considerably in advance of our deep adit level. The lode in the stopes over the back of the 10 will turn out on an average about 18 cwt. of lead ore per fathom. The lode in the stopes over the back of the 20 yields from 12 to 15 cwt. of lead ore per fathom. The lode in the 20, east of the boundary, is 2 ft. wide, containing kilaas, quartz, and detached cubes of lead ore. The new slide at the mouth of the shallow adit level has been completed; this gives us greater facility for the transit of stuff to our dressing-floors. We shall sample on Tuesday next 70 tons of lead ore.

DALE.—R. Nines, March 22: The Pipe vein is again improving a little, and hope to be able to give you a better account of it before long.

DEVON AND CORNWALL UNITED.—T. Nelli, March 21: The lode in the 24, east of Ley's shaft, is producing good stone of ore, also the 12 east.—William and Mary: The lode in the 22, west of cross-course, is producing good stones of ore. We have no change in the 22 east. The stopes in the back is worth 12 tons per fm. We are getting on well with our sampling.

EAST BUCKLE HILL.—J. Eddy, March 22: We have not made so much progress in driving the cross-cut adit for the past week as I could wish. We have met with an elvan course running east and west, which has caused the ground to be a little more expensive for working for the present; however, I am in hopes the driving a few feet further south will bring us through this run of ground, when I have no doubt we shall meet with as easy ground south of the elvan course as had been driven through north, which was driven for 35s. per fm.

EAST CARADON.—Jas. Secombe, March 22: Caunter Lode: The 70 east is poor. The 80 east is worth 20f. per fm.; and the 90 west, 12f. per fm.—New Lode: The 60 west produces saving work.

EAST GARN HILL.—T. Glanville, J. Scholier, March 22: No. 3 Lode: In the 70, driving east, the lode is producing 5 tons of ore per fm. In the 70, driving west, the lode is producing 3 tons of ore per fm. In the 60, driving east, the lode is producing 2 tons of ore per fathom. In the 60, driving west, the lode is producing 2 tons of ore per fm. In the 40, driving east, the lode is producing 3 tons of ore per fm.

EAST DAREN.—March 21: Taylor's Shaft: In the 116 east the lode is from 3 to 4 ft. wide, producing from 5 to 6 cwt. of lead ore per fm. In the 104 east the lode is from 5 to 6 ft. wide, yielding 1 1/4 ton of lead ore per fm. In the 92 east the lode is from 5 to 6 ft. wide, not looking so well as when last reported, the lode being disordered by a bed of clay-slate and sandstone of lime, but we hope we shall have an improvement shortly. In the winze sinking below this level, on the south part of the lode, the lode is from 5 to 6 ft. wide, producing 1 ton of lead ore per fm. In the 92, west of boundary winze, the lode is from 4 to 5 ft. wide, producing stones of ore, but not to value. In the 80 east the lode is 2 feet wide, producing 15 cwt. of lead ore per fm., and looking promising for improvement. In the 68 east the lode is from 2 to 3 ft. wide, producing fully 1 1/4 ton of lead ore per fm.—Reed's Shaft: In the 80 west the lode is 3 ft. wide, unproductive for lead ore. The stopes and pitches throughout the mine continue to yield their usual quantities of ore.

EAST GREAT WORK.—J. Lean, March 22: At the engine-shaft the ground is at present a little harder, caused by slope of the lode, in which occasional stones of copper ore are found; the shaft is now sunk 3 fathoms below the 20 fathom level. The lode in the 10 fathom level west is 2 ft. wide, producing stones of copper ore, of rather an improved appearance.

EAST JANE.—J. Hodge, March 22: The engine-shaft is in regular course of sinking below the 36, the ground in which is a little more spare for sinking. In the 36 fm. level cross-cut, driving east from engine-shaft, we have intersected a lode or branch; it is composed principally of soft blue clay-slate, floukan, muddle, and spotted with lead. In the 36 fm. level south end, on the eastern part, we have met with a hard floor of ground, which has caused the lode to be small; however, I think we shall soon get through it, when I have no doubt the lode will again be found productive. Just behind the end we have cut in west through the lode 6 ft., and reached a kilaas wall; although not very productive for lead, it is showing a good appearance; there may be still more lode to the west; however, the winze sinking below the 26, on the western part, coming down a little before the end, will prove this shortly; the lode in the winze is looking well, yielding full 8 cwt. of lead per fathom. In the 26 fm. level south, driving north from No. 2 cross-cut, on the eastern part, the lode is yielding dressing work. The cross-cut, driving east of the 26 fm. level south, towards the old western lode, is progressing favourably. Nothing new has been met with in the 26 fm. level east end, west, the ground in which is the same as for some time past. The lode in the 26 fm. level north end is 3 ft. wide, yielding stones of lead. The lode in the adit level north is 1 ft. wide, composed principally of floukan, intermixed with lead. The tribute pitches are turning out much the same as usual.

EAST LAXEY.—R. Rowe, March 21: I am unable to report anything new in the mine, from the circumstance that all the men for the last fortnight have been engaged in discharging the vessel, and adding in getting the remainder of the wheel and machinery from the port of Kamsay up to the mines. The deep adit, on No. 2 lode, has been kept going, and the appearances continue encouraging; the lode is 4 feet wide, composed of gossan and stones of rich copper ore. We shall not lose a moment in setting up the wheel, and getting under way sinking on this lode.

EAST PROVIDENCE.—T. Uren, W. White, March 22: The stopes in bottom of the 60, east of junction, on Bamfield's lode, has improved, now worth 20f. per fm.

EAST ROSEWARNE.—J. James, March 22: In the 85, west of Hallett's shaft, the lode is about 2 in. wide, producing stones of ore, and the ground rather hard for driving; this we may calculate on till we reach the dip of the branch of ore gone down in the 95. In the 85 east we have a good little branch of ore 4 in. wide; we expect an improvement in this level. The 75, east of Hallett's, is not quite so good as last reported, and the ground a little harder, but is opening ground that will work on tribute. The 75 west is unproductive. In King's shaft the lode is squeezed, and small towards the west end, but is a good lode east, 18 in. wide; this is dipping west, and I value the shaft at present at 16f. per fm. We are about down to the 75, and shall commence to drive on Monday next. In the 65, west of King's, the lode is 15 in. wide, worth 22f. per fm. The stopes are producing their usual quantity of good ore.

EAST SNAEFELL.—H. Rowe, March 21: We have no change yet in the deep adit, the lode continuing still in a "nip." In the shallow adit we are yet about 2 fms. off the cross lode. The improved weather has allowed us to resume operations on No. 1 lode, commencing with the cross-cut, a trial, in our opinion, of great promise. As the spring advances we shall open further upon the lodes on the surface, in different directions.

EAST TRESKERRY.—J. Nancarrow, R. Knuckey, March 21: The 30 cross-cut north is being pushed on as fast as possible, with a full pair of men; but hitherto we have intersected nothing of importance. A hard floor of spar has recently been passed through, but the ground is now better for driving, and congenial for ore. The lode in the 80 east appears to be thrown south; we are now cutting in towards it, and think we are very near it. The stopes in back is worth 6f. per fm. The stopes below the 12 west, above the 12 east, is worth 4f. per fm. The west stopes, above the 12 east, is getting up into the gossan, and does not yield much tin now. The weather is better for dressing, and we intend to sample 100 tons of tin-stuff next Monday.

EAST WHEAL ELLEN.—J. Garland, T. Corfield, March 22: In the deep adit level, driving east of cross-cut, the lode is a little larger than it was when we commenced to drive; it is now 2 feet wide, and composed principally of pebble, capel, spar, and muddle, also containing a little copper ore. The stratum in connection with it is of that character in which we may reasonably expect to find the lode productive of copper.

EAST WHEAL FLORENCE.—Wm. Verran, March 22: The engine-shaft is sunk about 15 fms. from surface, and will be holed to the shallow adit in the course of a few days, when it is highly probable we shall be able to turn the engine idle for some little time, as it is likely we may be able to sink 3 or 4 fathoms below the adit without a lift. We shall soon commence cross-cutting the lode at the depth of the adit level, where we hope to have some copper ore of fair quality. We also expect by the latter end of April to intersect the large copper lode near our western boundary, where we have reason to hope for saleable ore at a very shallow level. This mine bids fair to be a prize at no very distant period.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, March 22: There is no change in the engine-shaft since our driving of Saturday. The lode in the 75 east is 18 in. wide, of quartz, prill, &c.; here we are in the cross-course, and hope to get through it so as to commence driving north to cut the north lode at the end of this month. The lode in the 75 west is 2 1/4 ft. wide, and producing 3 tons of ore, with splendid work for tin; we think it is looking more promising for ore and tin at present, and it is very likely to get larger. The lode in the stopes below the 65 east is worth 4 tons of ore and tin 8f. per fathom. The lode in the stopes below the 65 west is worth 4 tons of ore per fm. There are three stopes above the 65 west, worth 15f., 10f., and 8f. per fm. The lode in the stopes above the 65 west is worth from 8f. to 10f. per fm. The winze sinking below the 65 and the rise above the 45 are opening good tribute ground.

EAST WHEAL LOVELL.—J. Burgan, March 22: The new shaft, sinking below the 40, is about 3 fms. under the 40, and is worth 100f. per fm., and improving. The lode has failed, and become unproductive towards the eastern end of the shaft. The western end of the shaft is also exhibiting more granite and less tin during the last day or two, but for a few feet in length only. I never saw it so rich as at present, and if it continues, and the ground goes no harder, we calculate upon raising 300f. worth of tin per month; this is the richest that can be done, especially as the south lode has failed; also the north lode, except in the shaft referred to. The 20, east of Burgan's, on north lode, is unproductive. The 20, west of new shaft, on north lode, is unproductive. The 40, on north lode, in the pit, as reported before, lode cut out. The south lode, in the bottom of the shaft, as reported previously, has become unproductive. The shaftmen on this lode have been employed during the last two weeks in stopping down some high ground, which produces a little tin. We are getting ready a parcel of tin for the market, and if we sell this week we shall get from 6 to 7 tons. At the Turnpike lode shaft

the masonry for the lode is nearly ready, and the lode will be erected forthwith. Having received many letters from shareholders pressing for information respecting the mine, I trust my report will be considered sufficient to convey the true state of the mine to all parties.

EAST WHEAL RUSSELL.—J. Goldworthy, March 20: In the 130, east of Soper's cross-cut, the lode in the upper part of the end has failed off in value, worth 8f. per fm.; the lode appears to be the kind before, the result of which we cannot say, as we have not seen anything of the lode before.

FOWEY CONSOLS.—F. Puckey, C. Merritt, G. Job, March 20: Trathan's Lode: In the 250, east of Bottrill's shaft, the lode is looking more promising, and producing stones of copper ore. In the 260 east the lode is 2 ft. wide, and worth 10f. per fathom. In the 270 east the lode has improved, is full 5 ft. wide, and worth 30f. per fathom. In the 280, east of the cross-course, the lode is 1 ft. wide, producing a little ore, but not sufficient to value.—Bottrill's Lode: In the stopes in the bottom of the 280, east of Bottrill's shaft, the lode is 3 ft. wide, and worth 25f. per fathom.—Hewitt's Lode: In the 190, west of Union shaft, the lode is 18 in. wide, but unproductive. In the 200 fm. level west the lode is 1 ft. wide, producing saving work. In the 210, east of the winze, the lode is 2 ft. wide, and worth 9f. per fathom. In the 280 west the lode is divided by a horse of kilaas, each branch is producing occasionally stones of ore; the ground in this end is still very hard and expensive for driving. There is no alteration in any of the ends on the north lode since our last report.

FRANK MILL.—J. P. Nicholls, J. Cornish, R. Andrew, March 22: The ground at the engine-shaft, sinking below the 115, is of the most favourable description, both for progress and the production of lead ore. In the 115 north, on the west lode, no lode has been taken down since our last advice. The east lode, in the 115 north, is without any particular change. The west lode, in the 100 north, is yielding 8 cwt. of lead ore per fm. The two stopes in the back of this level maintain their former value—45f. ton and 13 cwt. of lead ore per fm. The northernmost wide stopes, in back of the 45 north, is yielding 2 tons of lead ore per fm., and the stopes adjoining, in back of the same level, 2 1/4 tons per fm. We have no other changes in the tin work department to report. The tribute pitches are looking just the same as for some time past, and we are making good progress in every department.

FURSDON.—J. Collins, March 22: The cross-cut south at the 11 is still in hard capel, which makes the progress slow. The cross-cut north at the 21 appears to be in the junction of the two cross-courses seen at the surface, which form a junction going north. We have commenced driving west, to be clear of all the cross-courses, before cross-cutting any further. We are now opening a piece of ground, west of cross-course, at surface to prove the heave, which will be a guide to our underground operations. The pitch in back of the 21 west is being taken away by two men at the tribute offered, 10s. in the 100 north, to induce them to sink in other pitches.

GAWTON COPPER.—G. Rowe, March 18: The ground in the 50 cross-cut, north from engine-shaft, has a little improved, having passed through some hard floors of spar in the last few feet driving, which has rather impeded our progress during the past week. The lode in the 36 fathom level west is still looking very kindly, and yielding from 2 to 3 tons of ore per fathom.

GOLCH HILL.—March 22: The end driving north is now in 41fms. from shaft; the lode is 3 inches wide, composed of clay and lead, worth for the latter 3 cwt. per fathom. The shaft is 3 1/4 fms. below the 54, the ground is very hard, and the lode poor. The water has not decreased since my last report. No other alterations in the mine.

GREAT BRIGAN.—J. Treddinick, March 22: A good improvement has taken place since my last report in No. 1 winze sinking below the deep adit level, east of cross-cut; the lode for length of winze is worth 15f. per fathom for copper ore. In No. 2 winze, sinking below the said level, the lode is worth 6f. per fm. The lode in the end driving east of cross-cut, at the deep adit level, yields 1 ton of ore per fm. No lode has been taken down in the end driving west of the new shaft, at the 10, during the past week. I have put four men to sink a winze below the deep adit, west of the new shaft, on the south part; the lode has not been taken down. We have commenced to sink the western shaft below the 42, on the north part of the lode, which produces good stones of ore. In the 42, the lode is 3 ft. wide, and worth 15f. per fm. for copper ore.

GREAT NORTH DOWNS.—J. W. Crase, M. Jenkin, March 22: No change in any of our tinwork operations since last week's report. At King's and Slegan's shafts the water has gone down but very little.

GREAT NORTH LAXEY.—E. Rowe, March 21: The engine-shaft is now 9 fms. below the 60; in the very bottom the lode is now drawing to a sharp "nip," a feature we have been watching, and are anxious to see. According to analogy, when the nip has had its way we have the strongest reason for expecting a wide and valuable lode below. In both ends of the shaft the lode is 3 feet wide, and producing some good lead. The 60 end south is still showing no good lode, not being so wide, but still containing a good branch of lead. In the 60 end, driving south, the lode is 3 feet wide, composed of gossan, kilaas, and occasional rich lumps of lead. I have a good opinion of discoveries being made in this direction.

GREAT SOUTH CHIVERTON.—J. Nancarrow, J. George, March 21: We have driven west on the new lode 2 1/2 fms.; it is large, composed of prill, floukan, iron, and muddle, with spots of lead, and altogether has a good appearance. We have also driven east 2 fms., and have encountered a slide and some elvan, which have disordered the lode; this level east and west appears to be just on the top of lead ground, for the lode is not settled anywhere towards the back of the end, but in the bottom we have broken several small veins of lead; it seems to be a regular and porous lode, for it has already drained a spring of water about 100 fms. east of where it is intersected. The west end on the former lode is driven 8 fms., and is pushed on as fast as possible; the lode chiefly floukan and prill, and looks well.

GREAT SOUTH TOLGUS.—J. Daw, March 22: In the 154 east the lode is 3 1/4 feet wide, producing 4 tons of copper ore per fathom. In the winze sinking below this level the lode is 3 ft. wide, producing 4 tons of ore per fm. In the 140 west, on the tin lode, the lode is 4 ft. wide, worth 7f. per fm. for tin.

GREAT WHEAL BADERN.—The Rev. Pryor, H. Trengoon, March 18: We have set the following bargains to drive north on the new lode, which is in Hill Brothers engine-shaft, by six men, at 12f. per fathom. This end is now in from shaft 22 fathoms, and, according to the underlie of the lode cut in the 63 cross-cut north, we have about 5 fathoms further to drive this end to intersect it in this level, which will take a little more than two months to accomplish; we have not as yet met with the elvan. The 63 cross-cut is driven south of Hill Brothers shaft 10 fathoms 3 feet, and we have this set the same to drive by four men, at 10f. 10s. per fathom; the end is also strongly charged with muddle and blende, with spots of lead, letting out a quantity of water. We calculate we have to drive this end about 4 fathoms further to intersect the Badern main elvan, which is a most valuable piece of ground, and, if we do, the whole mine, this is an important point, as it is reasonable to expect, when the elvan course is cut through, it will drain a great portion, if not the whole, of the water from the western mine. The 13 to drive west of cross-cut, from tin shaft, by two men and two boys, at 3f. 10s. per fathom, in a lode 2 1/4 feet wide, worth 4f. per fathom, and likely to improve, as it is all in whole ground; this level we have cleared out, which was filled with rubbish. We have also set three tribute pitches, from 10s. 6d. to 13s. in 1f. A short time will prove the two great points north and south of Hill Brothers shaft, which shall be pushed on with all possible speed. Our engines are now working well.

GREAT WHEAL BUSY.—J. Edwards, J. Treddinick, C. Bowden, March 18: The 150 fm. level cross-cut, driving south from Harvey's engine-shaft, is still in the elvan course, and is hard for driving. We have cut into the lode in No. 1 cross-cut, east of Harvey's engine-shaft, at the 140 fm. level, 5 ft., and have broken therefrom some splendid stones of tin, but cannot as yet ascertain its size or value. We have not yet communicated the 140, east of Harvey's engine-shaft, with the 140, west of Offord's; the lode in this level is 4 1/2 ft. wide, worth for copper and tin 10f. per fm. In the 140, driving east of Offord's shaft, the lode is 4 ft. wide, worth for copper and tin 15f. per fm. Offord's shaftmen are now engaged cutting ground at the 130 fm. level, east of Harvey's engine-shaft, which is now working at the 100 fm. level. The lode in the 130 fm. level, driving east from Harvey's engine-shaft, is still in the elvan course, and is hard for driving. 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20, 40, and 50 fms. east of the shaft, and all things are thorough in that direction. There is no particular change in any of the other lodes, and the mine does not report.

ST. JUST CONSOLS.—J. Cartwright, W. Williams, March 22: On the 12 east end of the shallow adit level is being driven by two men; the lode is large, with tin throughout. The stopes in the bottom of this level are now down to the deep adit, with a good branch of tin holding down in the bottom. We intend to sink a winze in this good run of tin ground. We are still sinking the Guide shaft, and at the setting on Saturday we intend to set the levels to drive on the Guide and new lodes, which we have no doubt will open up some good tin ground.

TRELOWETH—J. J. Richards, March 23: The lode in the pump-wine sinking below the 100 east is 24 ft. wide. The winze is under the level 74 fms. The 144 and 100 are worth fully 122 per fm. The 134 is worth 81 per fm. The 124 is worth 51 per fm. Not much alteration in the pitches.

TRENCROM.—W. Arthur, H. Woolcock, March 22: There is no change in the 116 east of Hollow's, since our last report. The lode in the rise above the 100, east of Hollow's, is 18 inches wide, worth 51 per fathom. The lode in the winze sinking below the 90, east of Hollow's, is 15 inches wide, worth 41 per fathom. The lode in the 90 west of Gleaser's engine-shaft, is 1 foot wide, worth 21 per fathom. The lode in the 70, east of Hollow's shaft, is 18 inches wide, worth 51 per fathom. We have commenced driving a new shaft to the 40. The lode in the 40, east of Hollow's, in 12 in wide, stamping work for tin.

TREWE WHEEL ROSE.—J. Middleton, Wm. Billing, March 23: The men are busily engaged in raising stows for building the engine and other necessary houses.

TREVENEN AND TREMEHERE UNITED.—John Medien, March 22: Our setting on Friday runs thus:—To sink the new sump-shaft below the 162 fathom by six men, at 121. per fathom; the lode at present is worth 121. per fathom. To drive this level east of shaft by two men and two boys, at 50s. per fm.; the lode is worth 61. per fm. To drive the 172, west of Trevenen shaft, by six men, at 50s. per fm.; the lode is worth 61. per fm. To drive this level, east of shaft, by six men, at 50s. per fm. To drive the 182, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 192, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 202, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 212, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 222, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 232, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 242, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 252, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 262, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 272, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 282, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 292, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 302, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 312, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 322, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 332, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 342, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 352, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 362, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 372, west of Trevenen shaft, by six men, at 50s. per fm. To drive the 382, west of Trevenen shaft, by six men, at 50s. per fm. 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days, the like of which I never saw before here in March; it has been continually snowing, more or less, so that the railway from Micoche to La Hancoula has been quite blocked up. We hope soon to have a change. Nothing has been done at out-door work.

ALZEN AND QUENANGEN.—Under date Feb. 28, Captain C. Trelease writes that Cedar's lode, in Quenangen, has not yet recovered its former productiveness, but it is still gradually improving. The ore slogging, as well as other matters, is going on satisfactorily, and they fully expect to show good results on the setting in of spring.

CAPE COPPER.—The superintendent writes: "From the reports for the past month you will perceive good progress is making at the mines. From Ookiep the extraction amounted to 251 tons, averaging 27½ per cent.; and from Spectacle 54 tons of 30 per cent. No. 1 Trial level, at Nababess, continues to show spots of rich ore, but Capt. Clemes estimates that three months longer will be required for this work, to cut through the line of probable dip of ore ground. Mr. Davis has been making good progress during the past month, also with reduction of refuse ore at Ookiep and Springbok, averaging 8 to 9 per cent. A large quantity of ore was still lying at the mines waiting for transport, but the superintendent states that he has confidence in altered arrangements bringing a large increase to the number of carriers. The *Rondinella* was loading a cargo of about 500 tons of ore at Hendrikspijl Swanes, and had 50 tons on board."

WEST CANADA.—Capt. Plummer, Feb. 16: Huron Copper Bay: The 20, east of the new engine-shaft, is much the same, yielding about 2 tons per fm. The 10, west of ditto, is poor. The slope in bottom of the 10, east of new shaft, yields 3 tons, and that on the west of Palmer's 4½ tons per fm. There is no change since last report in the cross-cut north of Palmer's. The slope in bottom of the 10, west of Palmer's Fire lode, yields from 2½ to 3 tons per fm. The winze below the 20, west of Bray's, yields 5 tons per fm. The winze below the 20, east of ditto, is poor. The 30, east of Bray's, contains a promising lode, worth 3 tons per fm., and that in the west of ditto is of a similar character, both looking well. Wellington: The level on the west of Grenfell's is going on well, yielding 3 tons per fm. The slope on the east and west of Rowe's winze, below the 20, are worth from 2½ to 3 tons per fm. each. The slope on the east of Hooper's shaft is worth 3½ tons, and in the west of Rowe's 3 tons per fathom. The slope west of Knight's Fire lode is worth 2 tons per fm. Knight's continues poor. The lode in the bottom of the shaft is in a disordered state. The slopes east and west of Collier's are turning out well—much better, in fact, than we expected, yielding respectively 2½ tons per fm. On the west of Knight's winze the lode is worth 2½ tons; on the west of Creba's, 2 tons; and on the west of Jack's, 1½ ton per fathom. The new engine-shaft, on the north lode was going on famously until the other day, when we opened upon a large stream of water. We have gone on hoping it would decrease after the first rush, but it continues quite strong, and we fear it will be permanent. The lode has not changed. The tribute pitches are doing pretty well, both on the Wellington and on the Bruce. At the latter place we have from 25 to 30 tons of ore on hand. I am happy to tell you that our general progress is favourable, and our prospects somewhat encouraging. For January we raised 248 tons, and dressed 175 tons; during a part of the month we were working on topplings, which accounts for the smallness of the quantity that was dressed.

NEW WILDBERG.—M. Ferdinand, March 18: The 40 cross-cut, driving north from Carter's shaft, is in very hard ground; in fact, we never saw a much harder stone in this mine, but the cross-cut south is not quite so hard. In the 30 we are driving west, on the hanging part of the Dornergang lode, which part is at present unproductive. The same level, driving east on the Erbteistergang, is producing a little ore—say, from 4 to 5 cwt. per lachter. The lode in the bottom of Conder's sink, about 12 lachters in advance of this drive, is worth fully 3½ tons of silver-lead ore per fm. At Davey's workings the men are busily engaged putting in timber and securing the ground preparatory to sinking below the 30. The lode, we are glad to say, both in back and bottom of the level, is worth fully 3 tons of silver-lead ore per lachter. There are no further alterations in any of the drives or sinks since the date of last report. Next week a more detailed report shall be sent.

MINING IN SPAIN.—No. I.

The number of concessions of mines, exhausted mines, and quarries in Spain appears in 1862 to have been 6581, according to a table based on data furnished by the civil governors of each province. The number of productive mines amounted to 1286, according to another table prepared by district or provincial engineers. The productive concessions were thus in the ratio of 19.54 per cent., or about one-fifth, to the total number of concessions granted. This proportion of one productive mine to every five in working may appear small to those who are not aware what happens in this regard in the majority of countries as regards their mines, products of a certain description excepted. At the same time, it may be concluded with some justice that the number of productive mines in the Peninsula might become greater if the large number of works undertaken could be watched over in a suitable manner. This result cannot, however, be attained with the present limited and insufficient staff of district engineers. In effect, 45 engineers are divided over 17 districts of the Peninsula, and, deducting the 17 engineers-in-chief, there remain only 28 engineers to inspect and control 6581 workings, without taking exploratory galleries and shafts into the calculation. Each engineer has thus 235 mines to watch over, and even this average does not represent the reality in many provinces, such as Almeria, for example, where 424 concessions devolve on the inspection of one engineer, concessions of a painful and even dangerous character, as these mines are situated in localities difficult of access, on arid and steep mountains; so that it is almost impossible for an official to fully ascertain their position, and to class them individually as productive or unproductive in their operations. They have accordingly to be simply returned either as mines in activity or as mines which have suspended their works. In order to perfectly appreciate a comparison between productive mines and the whole of those which are in working, it would be necessary to acquire a complete knowledge of the number of unproductive mines which have maintained works in each province, and of the number of workmen whom they have occupied. The total and united production of the different substances comprised in the first category of the official data on which we base our article, and which, excluding salt-springs, have been the object of mining operations, amounted in 1862 to 1,201,059 metrical tons, produced by 31,800 workmen; so that each workman obtained in 1862 a return of 37 tons. The different substances which form the total production extracted from Spanish mines may be grouped under four heads—metallic substances, non-metallic substances, iron minerals, and combustibles. The relative importance of each classification was as follows, in 1862:—Metallic substances, 571,956 tons; non-metallic substances, 26,970 tons; iron minerals, 213,192 tons; and combustibles, 388,941 tons: total, 1,201,059 tons, or an average of 936 tons for each productive concession. The production of substances modified by metallurgy was as in 1862:—Metallic substances, 67,486 tons; non-metallic substances, 5493 tons; iron substances, 79,296 tons: total, 152,275 tons.

The "metallurgical substances" are the nursery, so to speak, of the mineral production of the Peninsula, the wealth of which has attracted the notice at various times, and under varied circumstances, of the different states of Europe, which have been astonished from time to time by the successive discoveries which have sustained the courage of the enterprising men engaged in a subterranean struggle with Nature in the Spanish soil. Lead, mercury, copper, silver, zinc, tin, and other matters constitute the mineral production of Spain. Lead is at the head of all these metals, both as regards its general richness and the abundance with which it is scattered over the soil of the Peninsula. In all 21 provinces contribute to the mineral production of Spain, and of these 11 sustain a part in the supply of this metal, especially the provinces of Almeria, Murcia, and Jaen, the three points from which is thrown on the markets of the world that important mass of lead which forms one-fourth or one-fifth of the value of the Spanish export trade. The three provinces mentioned produced in 1862 no less than 56,598 tons of lead, or 90 per cent. of the whole of the lead found in Spain. The provinces of Granada and Ciudad-Real produced 5250 tons, or 8.36 per cent. of the whole national supply of lead for the year, leaving only 1.64 per cent. to be contributed by the remaining provinces. Copper ore figures, as regards extraction, in the returns from five provinces, while in respect to its treatment it is spread over five provinces. But the only important province as regards the production of copper is that of Huelva, which yielded 2812 tons of refined copper in 1862, of which 1811 tons, or 46.64 per cent., were supplied by the Rio-Pinto Mine, belonging to the State. This seems a convenient point at which to suspend our first sketch of modern—at any rate comparatively modern, although we confess 1862 seems in such rapid times as those in which we live almost a remote era—Spanish mining enterprise.

THE SEWAGE QUESTION.—On Monday a petition was presented by Mr. Tite, M.P., to the House of Commons from our correspondent, Mr. George Shepherd, C.E., against the Sewage Utilisation Bill. Mr. Shepherd's opinion of this bill is that it is utterly useless, and that the provisions contained therein give no power to the local boards to dispose of the sewage. We are informed that a new bill will be shortly brought before the House of Commons for this purpose.

The share-list of the San Pedro del Monte Silver Mining Company (Limited) closes on Tuesday next, the 28th inst.

Messrs. G. S. Beccroft and H. Hardie have joined the direction of the El Chilo Silver Mining and Reduction Company.

THE SLATE TRADE—ITS STATE AND PROSPECTS.—The highly satisfactory position of the SLATE TRADE—the demand being so much greater than the supply—renders all information respecting it of general interest. Some three years since a descriptive pamphlet was issued by Mr. T. C. Smith, of which two editions of 5000 each were speedily disposed of; this has now been re-printed, with much original matter from practical authorities in the several districts, and particulars of most of the quarries at work, explanatory of their state and prospects. The new work is published at 1s. each, and can be had at our office.

The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, MARCH 24, 1865

COPPER.				SILVER.			
Best selected.	£	s.	d.	Per lb.	Per lb.	Per lb.	Per lb.
Best selected.	89	0	0	90	0	0	0
Tough cake.	87	0	0	88	0	0	0
Tilt.	87	0	0	88	0	0	0
Burra Burra.	92	0	0	93	0	0	0
Copper wire.	91	0	0	92	0	0	0
ditto tubes.	91	0	0	92	0	0	0
Sheeting & bolts p. ton.	95	0	0	96	0	0	0
Bottoms.	100	0	0	101	0	0	0
Old (Exchange).	91	0	0	92	0	0	0
IRON.				STEEL.			
Bars Welsh, in London.	£	s.	d.	Swedish, in kegs (rolled).	Per Ton.	Per Ton.	Per Ton.
Do, to arrive.	7	2	6	15	10	0	15
Nail rods.	8	10	0	(hammered).	16	0	16
Do, Stafford.	8	10	0	Ditto in faggots.	16	0	16
Do, ditto.	9	0	11	English, Spring.	18	0	18
Hoops ditto.	9	12	6	Bessemer's, Engineers Tool.	44	0	0
Sheets, single.	10	7	6	Do, Spindle.	39	0	0
Fig. No. 1, in Wales.	4	10	0	Quicksilver (per bottle).	8	0	0
Refined metal, ditto.	4	0	5	SPALTER.			
Bars, common, ditto.	4	0	5	Per Ton.	Per Ton.	Per Ton.	Per Ton.
Do, merchant, Tyne Tees.	7	10	0	Foreign.	19	5	0
Ditto, railway, in Wales.	6	0	6	To arrive.	19	10	0
Ditto, Sweden, in London.	11	10	0	SING.			
To arrive.	12	0	0	In sheets.	24	10	0
Fig. No. 1, in Clyde.	3	11	6	English, blocks.	97	0	0
Ditto, f.o.b. Tyne or Tees.	2	9	6	Ditto, Bars (in barrels).	98	0	0
Ditto, f.o.b. 3, 4, f.o.b. 2.	2	6	5	Ditto, Refined.	100	0	0
Railway chairs.	5	10	0	Banca.	95	0	0
Do, spikes.	11	0	12	Strait.	85	10	0
LEAD.				TIN-PLATES.			
English Pig, ordy. soft.	20	5	0	IC Charcoal, 1st qua. p. bx.	1	7	0
Ditto (WB).	21	12	6	IX Ditto 1st quality.	1	13	0
Ditto sheet.	21	0	0	IC Ditto 2d quality.	1	5	0
Ditto rod.	22	0	0	IX Ditto 3d quality.	1	10	0
Ditto white.	26	0	0	IC Coke.	1	6	0
Ditto patent shot.	23	0	0	IX Ditto.	1	6	0
Spanish.	19	10	0	Canada plates.	1	13	0

* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—Although the Metal Market is far from being in a satisfactory condition, yet there are appearances of a better state of things arising ere long. During the past week there have been more enquiries, and buyers seem rather more disposed to give out orders; but the deplorable Lock-out in Staffordshire is a great hindrance to business in iron, and the great uncertainty as to how or when the present state of affairs is to terminate is causing a general stagnation in that particular branch of the metal trade. It is very desirable that some means should be adopted by which both strikes and lock-outs could be avoided for the future, and some plan of arbitration established by which all differences between masters and men could be settled without resorting to those measures so ruinous to both parties, and which cannot be taken without serious damage to all concerned in the iron trade, besides being so calculated to drive the trade from this country to others; and, should this once be done, it will not be so easy a matter to recover the trade which may be thus lost. Orders from India still continue very limited, but to some other parts of the East, from which there has been lately almost an entire cessation of business in metals, a few orders have arrived, which may be taken as an earnest that a revival of the trade in metals will soon take place in those countries.

COPPER.—The market for this metal still continues rather firmer, and a little better business is now doing, especially in manufactured. Prices remain about the same as last week.

IRON.—In Staffordshire the iron trade is at a standstill, owing to the lock-out, but at present there is no great pressure by purchasers. Advances from the United States are to the effect that there is no hope of orders being sent from that market for iron, except at a further reduction of 12 per cent. The lock-out is gradually leading to the partial stoppage of the mines; and, should it last a week or two longer, blast-furnaces will be blown out, and the number of men unemployed will be greatly increased. A warning to the English iron trade is being given by a circular offering to supply Belgian manufactured iron in any quantity, and of all variations and degrees of quality, at prices lower than those quoted in the regulated lists of the Association, and quite as low as the selling prices of any English ironmaster in the trade. The quarterly meeting of the Association is now nearly at hand, and we shall see what influence the lock-out may yet have on the scale, which is agreed to as a general standard, but which binds no individual firm, even those belonging to the body. In Welsh, there is a better enquiry for certain descriptions of iron, consequent upon the stoppage of the works in Staffordshire; but whether this will continue is another question. At present makers are fairly supplied with specifications, and the works are, as usual, in regular employ. When the Staffordshire works were in operation a large quantity of puddled bars were sent there by the Welsh makers; and the fact that this demand has ceased has rather neutralised the effect of the improvement from other markets. The South Wales ironworkers entirely disapprove of the conduct of the men in Staffordshire, and have declared that they will not assist them in any way. In Swedish iron prices are still looking up. In Scotch pig-iron a better business has been done during the week, and prices have advanced. At the commencement of the week they stood at 50s. 4½d. cash, and 50s. 7½d. one month, but have since advanced to 50s. 7½d. cash, and 50s. 10½d. one month; and at last business was done at 50s. 9d. cash, and 50s. 10½d. to 51s. one month.

LEAD.—The demand continues very moderate, and prices still remain at 20s. for common English pig, 20s. 5s. for L.B., and 21s. 12s. 6d. for W.B. **TIN.**—A considerable amount of business has been done in Straits during the week, but it has been at a reduction in price, about 3000 slabs having been sold at 86½ cash, and more recently business has taken place at 85½ 10s. to 86½ cash, which may now be considered the quotation. Banca is now held for 95½.

SPALTER.—The market remains inactive. Transactions on the spot have taken place at 19s. 5s. to 19s. 10s.; and for forward delivery, 19s. 10s., at which prices the market is steady.

TIN-PLATES.—Makers are still increasing their stocks, and prices continue to be low.

STEEL AND QUICKSILVER have undergone no change.

BIRMINGHAM, MARCH 24.—Rylands' "Iron Trade Circular" says:—The principal business on our market has been the clearing out of old stock, but as buyers disbelieve in the duration of the Lock-out, and will not allow prices to go up, we quote them without alteration, excepting that Welsh masters are even firmer in regard to orders than last week, and quote 6s. 10s. to 6s. 15s. at works. The agents for Belgian firms, who were in hopes of running in their iron, are disappointed at the paucity, if not entire absence, of orders.

THE IRON TRADE IN SCOTLAND.—The Gartness Ironworks, which have been undergoing extensive repairs for several months, have been set in operation, six puddling-furnaces having been put in blast. There are already nearly 100 men employed at the works. At a meeting of the Scottish malleable ironmasters, held in Glasgow, it was unanimously resolved—first, that a reduction should be made of 1s. per ton on the wages of puddlers, and of 10 per cent. on the wages of millmen and others, and that 14 days' notice of this reduction should be given on Saturday, March 25; and, secondly, that the Scottish ironmasters shall not employ workmen coming from the districts of England where the men are at present on strike or locked-out.

THE LIVERPOOL METAL MARKET—MARCH 23.

FIG-IRON.—Market depressed, without change in price. Some enquiry for hematite pigs, which are quoted at 65s. to 70s. in Liverpool.

MANUFACTURED IRON.—The continuance of the Lock-out, and the improbability of matters coming to anything like a settlement, continues to stiffen prices for immediate delivery. Most of the South Wales makers are very full of orders, and many of them refuse to book further lots at present prices. Welsh bars are quoted 7s. in Liverpool, 6s. 10s., f.o.b., in South Wales, less 3 per cent. Best ship-plates are offering at 9s. 10s., or 15s. per ton higher than was quoted a month ago, and considerable specifications have been given out at this price. Almost any price can now be got for lots from stock in Liverpool, and most of our merchants who hold stock are raising their prices.

COPPER is in better demand, with prices somewhat stiffer. **TIN.**—The makers of English tin must reduce their prices before they can expect any large orders to be given out. We have had a poor demand this week, prices ruling 3s. and 4s. under the official list.

LEAD continues dull, and prices rather lower.

TIN-PLATES.—Little or no improvement. Cokes quoted at 20s. 6d. to

20s. 9d., f.o.b., and will certainly be cheaper before long. Charcoal is off very slowly, at 25s. to 26s. 6d., according to specification.

HEMATITE ORES.—We made an inadvertent error last week in quoting Hotbarrow ores at 11s. 3d. to 11s. 6d. Ores from this mine have not been sold under 12s.

IMPORTS OF ORES, &c., FROM MARCH 6 TO MARCH 18:—
340 tons of iron ore.
601 bags of cobalt ore.
240 bags of silver ore.
1 package of gold dust.
1332 tons of sulphur ore.
6810 cantars of brimstone.
6 bundles of copper.
1 case of copper.
5 bolts of copper.
183 plates of spelter.
879 bars of tin.
7300 quintals of copper regulus.

EXPORTS OF IRON, &c., FROM MARCH 6 TO MARCH 18:—
Bar.....Tons 3094
Rod.....852
Hoop.....607
Sheet.....506
Pig.....390
Railway.....368
Plates.....147
Iron knees.....Tons 34
Rails.....128
Galvanised sheets.....128
Corrugated sheets.....70
Angle iron.....10
Tyre iron.....68

COAL MARKET.—On Monday, the heavy easterly gales and cold weather, with only 19 fresh arrivals, caused a good deal of excitement in the market, and house coals met with a ready sale, at an advance of 1s. 6d. per ton on Friday's prices. Hartley's were dull, and no improvement in quotations. Best house coal, 20s. to 21s.; seconds, 18s. 9d. to 19s. 3d. Hartley's 14s. to 14s. 6d.; manufacturers', 13s. 6d. to 15s. per ton.—On Wednesday, of the 5 arrivals, there was only one cargo of house coal; the market was cleared, at a further rise of 6d. per ton. Hartley's still dull at old prices.—On Friday, there were 45 arrivals. There was a very active enquiry for house coal, and first-class sorts realised a further advance of 6d. per ton. Hartley's and manufacturers' coals are quiet at previous quotations. Haswell Wallsend, 22s.; Heston Wallsend, 22s.; East Hartlepool Wallsend, 21s. 6d.; Braddley's Heston Wallsend, 20s.; Heston Wallsend, 19s. 9d.; South Kellow Wallsend, 19s. 9d.; Gosforth Wallsend, 19s.; Harton Wallsend, 19s.; Tunstall Wallsend, 19s.; Holywell Main, 15s.; West Hartley, 14s. 3d.—Cargoes unsold, 4; ships at sea, 45.

EXPORTS OF COAL.—By the Monthly Circular of Messrs. Laird, Liverpool, we learn that the quantity of coal exported during Feb. was 517,596 tons, against 575,933 tons in the corresponding month of 1864, showing a decrease of 57,947 tons. The particulars are—From the Northern ports, 203,970 tons; Yorkshire, 18,651 tons; Liverpool, 56,695 tons; London, 4653 tons; Severn ports, 203,785 tons; and Scotch, 30,232 tons. The decrease was—Yorkshire ports, 79 tons. The decrease—Northern ports, 22,458 tons; Liverpool, 17,881 tons; Severn ports, 14,622 tons; Scotch ports, 8218 tons. The total shipments from Jan. to Feb., 1,030,230 tons; corresponding period last year, 1,107,637 tons; decrease, 77,378 tons.

"There has, of late years, been a great deal of mining speculation, and the Office of Woods had encouraged it with great benefit to the Crown Lands. In 1850 the Crown mines produced 10,000l. a year; they now produce 25,000l." Thus spake a Minister of the Crown in the House of Commons, on Tuesday night; and we notice it for the purpose of reminding what a graceful act it would be on the part of the Crown, the Duchy, and lords of mines in general, taking into consideration the present depressed state of metals, and the mining interests generally, if they would for 12 months remit the dues on all mines not paying the cost of working. Without some such concession many of the old and expensive tin mines must stop, and hundreds of persons will be thrown out of employ. The 25,000l. a year now received by the Woods and Forests alone is, of course, from royalties on ores raised by mining companies, in many instances, a great loss to the adventurers; though the chief part of it, we apprehend, is from Great Laxey. The royalties paid to the Duchy of Cornwall are very heavy; and the dues in such mines as Carn Brea, Cook's Kitchen, &c., are a great burden at the present time, especially when the shareholders, instead of receiving dividends, may be called upon to provide funds to meet current expenditure.

In the MINING SHARE MARKET very little change has taken place since our last, and the chief mines in demand have been Wheel Buller, Great Wheel Vor, Grenville, East Grenville, North Roskear, South Conderrow, Great Laxey, Great North Laxey, South Grenville, Clifford Amalgamated, Wheel Crebor, Unity, Basset, East Lovell, Great North Downs, Great South Tolgus, and a few others. Great Wheel Vor, 31½ to 32, ex dividend of 15s. per share, declared at the meeting. Wheel Grenville shares have been in demand, and very largely dealt in up to 4½, leaving off 4½; the mine is very much improving, and with a rise in tin would make good profits. East Grenville shares have declined to 3½, 3½; it was generally considered that with a heavy "bear" account, and the supposed scarcity of stock for delivery, the price would have gone up on "buying-in" day; but somehow or other the shares seemed plentiful on that day (21st), and were most, if not all of them, supplied. In the agent's report, under date of March 22, he says—"The lode in the 75 west is 2½ ft. thick, producing 3 tons of ore, with splendid work for tin; we think it is looking more promising for ore than tin at present, and it is very likely to get larger." Upon this favourable report, it is said, large numbers of shares were sold, and under date of March 23, or a few hours after the previous report, the lode in the 75 west is "not looking quite so well for copper as it was, but better for tin, together worth 20½ per fathom." Upon this, shares dropped to 3½, and gave rise to various comments on the market, which, doubtless, can be satisfactorily explained.

East Lovell shares have advanced to 11½, 12½; added to a very heavy account, we understand the lode is reported worth 200½ per fathom in the shaft, 13 feet. Bryn Gwio, 16½ to 17½; Carn Camborne, 22s. 6d. to 25s.; Clifford Amalgamated, 30 to 31; Conderrow, 47½ to 52½; Cook's Kitchen, 6 to 6½. East Basset shares opened at 15, sellers, on Friday morning, and close 22½ to 25, upon a rumoured discovery, of which, however, we have no particulars. Frank Mills, 6½ to 6½; no change has taken place in this mine. East Caradon, 14½ to 15; East Carn Brea, 6½ to 6½; Gonamena, 2½ to 2½; Great Laxey, 18 to 18½. Great North Laxey shares have been done at 3½, and leave off 3 to 3½. Great North Downs, 3 to 3½; Great South Tolgus, 2 to 2½; Great Wheel Fortune, 4½ to 5½, and call of 2½ paid. Hallenbeagle, 3 to 4½; Hingston Down, 3½ to 3½; Marke Valley, 5½ to 5½; Mineral Bottom, 4½ to 5; Nangle, 16 to 18; North Treskerby, 2½ to 2½; Providence Mines, 30 to 32; Belmoor, 2s. to 4s.; Rosewarne United, 30s. to 35s.; Sithney Metal, 2 to 2½; South Conderrow, 2 to 2½; South Crofty, 14 to 15. South Grenville shares have been in request, and leave off 4s. to 6s. South Lovell, 2½ to 2½; St. Day United, 15s. to 16s.; Tincroft, 14½ to 15. Vale of Towy, 2s. 6d. to 4s.; Wentworth Consols, 8 to 8½; West Chiverton, 5½ to 6½; West Seton, 180 to 190; West Tolgus, 60 to 62; Wheel Basset, 100 to 105; Wheel Chiverton, 5½ to 6; Wheel Crebor, 42s. to 44s.; Wheel Seton, 200 to 205; Wheel Trelawny, 19 to 20; Wheel Unity, 10s. 12s. 6d.

East Russell, 4½ to 4½; at the meeting, on Wednesday, the accounts showed a debit balance of 365½. 1s. 4d. only, irrespective of the ore sold this week, and a call of 10s. per share (2000l.) was made. This call, so much in excess of anything previously made, and of what was really required, has given rise to much comment, and comes peculiarly hard upon some people. The amount required for the ensuing quarter will, probably, be about 700l., without taking credit for ore sold, which, in two months, will be about 700l., and afterwards increase. The agent stated at the meeting that the 130 had been driven on the north part of the lode about 26 fms., of which 23 fms. was in ore ground of the average value of 12s. to 14s. per fm., being better than the level above, while they are not yet under the best part of the lode. Devon Great Consols, 580 to 590; at the directors' meeting a dividend was declared of 9½ per share (9216l.), leaving 21,148½. 1s. 10d. in cash, &c., in hand. Wheel Buller, 24 to 25; at the meeting held on Tuesday the accounts showed a loss on two months of 212½. 0s. 9d., and a balance against the adventurers of 1044½. 7s. 6d. The resolution for abandoning the mine, passed on Feb. 14, was rescinded. The pursers having expressed a wish to retire from the management, in consequence of their inability to attend to it, a committee of management will be appointed at the bi-monthly meeting, on May 16; at which meeting, also, the shares will be subdivided into 1024ths. The committee, also, will be instructed to endeavour to effect an amalgamation of Wheel Buller, Old Wheel Buller, and Copper Hill. In the 70 west, on the north, the lode is 10 feet wide; the north part is worth 20½ per fm.; the 60 east, 12½; the 60 west, 15½ to 20½ per fm.; and the future prospects of the mine, the agents' state, are very encouraging.

On the Stock Exchange only a moderate amount of business has been

transacted in Mining Shares during the week. The following quotations were officially recorded in British Mining Shares:—East Lovell, 101, 102, 12; Great Wheel Vor, 32, 32, 32, 32; Wheel Seton, 198; East Basset, 16, 19; Chiverton, 51; Great Laxey, 18, 18, 19; Grenville, 44; East Caradon, 15; West Basset, 7, 7, 7. In Colonial Mining Shares the prices were:—Cape, 10, 10, 10, 11; Fort Phillip, 1, 1; Scottish Australian, 4; In Foreign Mining Shares the prices were:—United Mexican, 4, 4, 4; Santa Barbara, 4; Montes Aurores, 4, 4; Washoe, 8, 8.

IRISH MINING MARKET.—The recent daily upward movement in the price of the shares of the Mining Company of Ireland has experienced a slight check, which is sure to continue if investors and speculators will calculate the dividends per cent. they are likely to receive, which, though most undoubtedly of a permanent character, are for that very reason not subject to such sudden increase in amount as to satisfactorily account for any great advance in the price of the shares. For the last few days they have been ineffectually offered at 32, 10s. for cash, but for July account they were dealt in at 32, 15s. (7, paid), being a reduction of about 2s. 6d. per share. Wicklow Copper shares are in constant request, and have in one or two instances been done at 13, 17s. 6d. (2, 10s. paid), being an advance of 2s. 6d. on last week's quotation, but a trifling reduction is now demanded. Connaught were steady at 22s. 6d., but Carysfort barely supported 9s., and General Mining Company for Ireland 4, or par, per share. In Kingstown Harbour there is at present a large number of vessels engaged to carry the ore from the Vale of Ovoca to various English ports, to the extent of many thousand tons.

The Val-Sassam Mines Company, with a capital of 60,000l., in shares of 10l. each, has been formed to purchase and develop some extensive mines of lead and copper ores, rich in silver, in the Val-Sassam, Canton Grisons, Switzerland. The concession, granted by the Landesherr in 1862, embraces the right to work all mines except coal and iron within the entire district, extending from Thusis, on the well-known "Via Mala," 20 miles in the direction of the Splügen, and being about 12 miles wide. No rent or royalty whatever is payable on the produce, the sole charge being a small fine, payable every tenth year. The simple fact that, after full examination of the property, Messrs. John Taylor and Sons have accepted the management of the company, is a sufficient guarantee that the concern presents an advantageous opportunity for investment to the English capitalist, and that it will be managed with energy, ability, and integrity. The workings have been inspected by the agents of the firm mentioned, and the operations have been carried on upon behalf of the company since October last, so that an ample means of testing the property has been obtained. The principal mines now open are the Orsera, an argentiferous copper mine, and the Tospino, a lead mine. The ore from the Orsera Mine when properly dressed are worth from 80l. to 100l. per ton, and those of the Tospino 35l. per ton. The purchase-money for the concession and the whole of the buildings, plant, machinery, tools, and apparatus, as well as the works and stock of ore extracted, has been fixed at 18,000l. A large number of shares has been already applied for from Switzerland, but the directors have reserved the right of allotting not less than two-thirds of the whole number in this country. The prospectus will be found in another column.

The South Wales Consolidated Lead Mining Company, with a capital of 20,000l., in shares of 10l. each, has issued its prospectus, which will be found in another column of this day's Journal. The object of the undertaking is to purchase and work the Cwmbram, Cassara, Pentwyn, and Lady Eliza Mines, in Carmarthenshire, and within four miles of Llangadock Railway station. The country is clay-slate of a lead-bearing character, in which the Nant-y-Mwyn Mines, not far distant, have been for many years very profitably worked by Messrs. Williams, the smelters, of Cornwall. The leases are for 21 years at 1-15th royalty. The Cwmbram has long figured in the lists of ore sales, and could, it is considered, be made self-supporting at once. There is an ample plant and machinery, as well as reservoirs for supplying the dressing-floors in dry weather. The consideration agreed to be paid for the purchase of all the existing rights in the mines and properties, including all machinery, buildings, and the whole of the plant, is 5000l., one-half in cash and the remainder in shares paid up to 5l. The properties to be worked by the company have been inspected and favourably reported upon by Capt. J. Roach, A. Waters, T. Goldsworthy, J. Williams, and I. Kemp, all of whom concur in regarding the mines as a thoroughly good speculation, and such as can confidently be recommended. The directors are to be appointed at the first meeting from among the shareholders.

At Truro Ticketing, on Thursday, 5373 tons of ore were sold, realising 25,590l. 18s. 6d. The particulars of the sale were:—Average standard, 134l. 3s.; average produce, 5l.; average price per ton, 4l. 15s.; quantity of fine copper, 300 tons 18 cwt. The following are the particulars:—
Date. Tons. Standard. Produce. Price per ton. Per cent. Ore copper.
Feb. 23.....4801.....£128 8 0.....£4 7 6.....15s. 9d.....£78 17 0
March 2.....3605.....128 0 0.....5 6.....4 9 0.....15 7.....78 8 0
" 9.....1116.....128 0 0.....5 6.....5 0 0.....16 3.....81 3 0
" 16.....2387.....127 6 0.....5 6.....5 3 0.....16 7.....82 18 0
" 23.....5373.....134 3 0.....5 6.....4 15 0.....17 0.....85 0 0
Compared with last week's sale, the advance has been in the standard 2l. 10s., and in the price per ton of ore about 8s. Compared with the corresponding sale of last month, the advance has been in the standard 7l., and in the price per ton of ore about 8s. The standard was 8l. 12s. better last week than at the corresponding sale in 1863; whilst as compared with the sales in 1862 and 1864, there is no material difference. The copper-producing mines are, therefore, as favourably situated, as regards the sales of their ore, at the present time as they were in 1864, and are receiving a very much better price than they did in March, 1863.

The directors of the Devonshire Great Consolidated Copper Mining Company, at their board meeting, held yesterday, declared a dividend of 9216l. per share, arising from profits on sales of copper ore sampled in the months of Nov. and Dec. After payment of the same, there remains in hand a balance of 21,148l. 1s. 10d. in cash, ore bills not at maturity, and reserved fund applicable to the general purposes of the company.

At the Foxdale Mines (Isle of Man) quarterly meeting, on March 18, the directors declared a dividend of 1l. per share.

At the Great Wheel Vor United Mines meeting, on Wednesday (Mr. George Nokes in the chair), the accounts, made up to the day of meeting, showed a balance of assets over liabilities of 6499l. A dividend of 15s. per share was declared, leaving 2067l. to be carried forward to the next account. Details in another column.

At the West Basset Mine meeting, on Wednesday, the accounts showed a balance carried over from last meeting, 247l. 11s.; copper ore sold, 4986l. 9s. 3d.; stores sold, 1l. 15s. 6d.; fines, 1l. 15s. 9d.; advance on tribute, 260l.; the sold, 2614s. 9d.; return income tax, 144l. 14s. 2d.; 5667l. 2s. 11d. Cost for December, 1864, and Jan. 1865, 2682l. 5s. 2d.; poor rates, 120l. 4s.; property and income tax, 246l. 15s. 4d.; royalty, 222l. 9s. 2d.; boundary costs, 51l. 5s. 7d.; advanced on tribute, 280l.; sundries, 17l.; showing credit balance, 1946l. 3s. 8d. A dividend of 1800l. (6s. per share) was declared, and 146l. 15s. 8d. the balance and the proceeds of sales of ore not at maturity amounting to 4084l. 11s. 4d.—4200l. 18s., applicable for the general purposes of the adventure carried over to the next accounts. A letter from Mr. Finch, the solicitor of the mine, was read, stating that the appeal had been presented to the House of Lords in the action of Lyle v. Richards.

At Wheel Buller meeting, on Tuesday, the accounts for January and February showed a debit balance of 104l. 7s. 5d. The loss on the two months' working was 212l. 0s. 9d. The loss would have been much more had not the costs been curtailed, and the discovery by one party of tributaries, which returned one half of the tin credited. The report of Capt. James Inch and John Dyer will be found in another column. The resolution for abandoning the mine was rescinded, and a committee was appointed to endeavour to effect an amalgamation of Wheel Buller, Old Wheel Buller, and Copper Hill sets on the most advantageous terms for all parties.

At the St. Day United Mines meeting, on Monday (Mr. Balster in the chair), the accounts showed a credit balance of 462l. Details in another column.

At West Damsel Mine meeting, on Tuesday, the accounts showed a debit balance of 278l. The profit upon the two months' operations was 236l. It had been deemed expedient to buy Old Wheel Damsel materials at a cost of 1350l., of which 1000l. was charged in the accounts submitted.

At the Leawood Mine meeting, on Thursday, the accounts for the ten months ending January showed a debit balance of 2780l., including the whole price of the new 60-in. engine. The shares were multiplied from 24 to 3000, giving each shareholder a *pro rata* increase, and a call of 10s. per 3000th share was made. An accident in the shaft had delayed the operations for three months, but all is now well secured. They have only just seen the copper lode in the 19 fathom level under adit, and have not yet got in to the lead lode. With regard to the copper lode, the agents say that it is from 2 to 5 feet wide, "composed of gossan, quartz, fluor-spar, and splendid stones of depth." They have begun to drive east on the lode, at 35s. per fathom, where the lode "has a very promising appearance." Captain James Richards, of Devon Great Consols, has examined the mine this week, and with regard to the lead lode, he says that it "has been opened upon at the surface very extensively, and proves to be, on the average, 6 feet wide, composed of quartz, prisms, and lead gossan in abundance, and is altogether of extraordinary promise." Respecting both the copper and lead lodes, he remarks that they "present very healthy appearances; and my opinion is that at deeper and more extensive points of exploration large deposits of lead ores will be met with, and that the proper laying out of the mine will be attended with very profitable results." An important point is that the shaft is said to be already sunk 11 fathoms below the 19, and the lodes never seen there, so that they will soon be able to drive to cut the lodes much deeper. Very valuable discoveries may be looked for ere long.

At Great Wheel Fortune meeting, on March 17, the accounts for the three months ending November showed a debit balance of 2674l. 18s. 8d. A call of 2l. per share was made. Captains Vivian, Miners, and George reported that although the mine throughout is at present poor, the prospects are good. They have 267 hands employed. Capt. Charles Thomas, having inspected the mine, made certain suggestions with reference to future workings, which, with the ordinary operations, will, he considers, probably lead to some improvement shortly.

At the Hallenbeagle Mine meeting, on Monday (Mr. J. A. M. Pinner in the chair), the accounts showed a debit balance of 1844l. 16s. 8d. A call of 5s. per share was made. Capt. E. Richards was appointed manager, at a salary of ten guineas per month. The committee of management were re-elected, and Messrs. Lake, McKend, and Permain were elected a local committee. The report of the agents stated that, looking at the general prospects of the ore ground already seen in great length on the north and south lodes, and also on Reed's, with the small water charge, it was evident a large productive mine would here be opened up at a very trifling monthly cost. The late heavy flood had interfered with underground operations; but, as the water drains the tributaries and tutwork men would soon be able to resume the working of the pitches and bargains; and, looking at the past returns and present prospects, it might be considered that during the coming summer the mine would be a dividend-paying adventure. They estimated their returns for the next four months to be about 2500l., and the cost for the same from 2600l. to 2800l.

At the North Dolcoth Mine meeting, on Monday (Mr. Bingham in the chair), the accounts showed a debit balance of 944l. 6s. 3d. A call of 4s. per share was made. It was stated that a cross-cut was being put out northward, in order to prove all the lodes in connection with the elvan course. The appointment of Mr. W. Lavington as secretary was confirmed. The committee were empowered to take legal proceedings against all shareholders in arrears of calls.

At North Jane mine meeting, held in Leeds, on March 20, the accounts ending December showed a credit balance of 151l. 1s. The office of management, &c., is to be removed to London. Details will appear in next week's Journal.

At East Wheel Vor meeting, on Thursday (Mr. Foord in the chair), the accounts, including February cost, showed a credit balance of 2538l. Details in another column.

At East Wheel Russell meeting, on Wednesday (Mr. Joseph Procter in the chair), the accounts showed a balance of liabilities over assets of 365l. 1s. 4d., and the loss on the three months' working was 1211l. 13s. 11d. A call of 10s. per share was made. Details in another column.

At New Hendra Mine meeting, on Wednesday, a call of 1l. 10s. per share was made.

At the Gellivara Company meeting, on Wednesday (Mr. G. B. Kitson in the chair), the Chairman stated that negotiations had been concluded with a London house of the highest standing for carrying out the iron trade for the next two years. Therefore, as far as they had gone, they might congratulate themselves on having conducted their affairs successfully. He would direct their special attention to the most important consideration—the construction of the railway. The estates had been visited by their engineers, and several gentlemen who had gone there from this country, and it appeared that there were no engineering difficulties to surmount in the construction of the works, and that they might be rapidly carried on, with the aid of sufficient means. A proposition was made to convert the shares into shares of smaller amount, but the legality being questioned, the consideration of the subject was postponed. Mr. Kjellberg, the managing director, stated that the value of the property consisted not solely in the inexhaustible supply of mineral, but in the facility of procuring it, and converting it into steel. The retiring directors and auditors were re-elected.

At the Don Pedro North del Rey Gold Mining Company meeting, on Thursday (Mr. Haymen in the chair), the report of the directors was adopted. Details in another column.

TRURO MINING MARKET.—Owing to the drop in tin of 40s. per ton, the tin mines are much depressed. Wheel Jane, which some eight or ten months since sold freely at 14 to 16, are now down to about 6l. 7s. although the mine, as I learn, never looked better: at their last meeting they decided on the immediate erection of a steam-stamp, and a committee were appointed, consisting of Mr. C. Hawke, Dr. Tom, and others. The lead mines never looked so well as now since the stopping of East Wheel Rose. West Chiverton never looked better: price 58 to 60. Great South Chiverton adjoins this mine south, in which they have cut a fine lode of lead, gossan, and blende; the lode is from 2½ to 3 feet wide, and has every appearance of making a rich lode in depth. In a few fathoms further driving they will cut a canner lode, which may be traced direct through the country from Old Shepherds. Capitalists will do well by watching this property. At North Chiverton meeting, on Friday, a call of 5s. per share (1500l.) was made. A committee was appointed, of which Dr. Tom, of Truro, is a member. I have just seen a mine agent of great experience who has just come in from the mine; he tells me they have a fine lode in the new engine-shaft. The prices are as follows:—Buddick Consols, 10s.; Wheel Hope, 20s.; North Shepherds, 4½ to 5; North Jane, 12s.; Wheel Jane, 6 to 7; Nangles, 12; Falmouth and Sperris, 1½; Cargoll, 34 to 36; West Wheel Jane, 5s.; South Crofty, 14 to 16; Wheel Rose, 32 to 32½; Westworth Consols, 7½ to 8; Mineral Botton, 4½ to 5.

OUR IRON AND STEEL EXPORTS.—It is a remarkable fact that, while our exports of iron and unwrought steel amounted to 1,494,630 tons last year, as compared with 1,640,949 tons in 1863, the value of last year's exports was 13,214,294l., against 13,150,936l. in 1863. The annexed figures show the progress of this branch of our exports in the last 15 years:—
Year. Tons. Value. Year. Tons. Value.
1850.....783,424.....£3,350,056.....1858.....1,349,058.....£11,197,072
1851.....919,479.....5,830,370.....1859.....1,465,191.....12,314,437
1852.....1,035,804.....6,684,296.....1860.....1,442,045.....12,154,997
1853.....1,261,372.....10,645,422.....1861.....1,322,694.....10,326,646
1854.....1,195,663.....11,674,675.....1862.....1,601,451.....11,365,150
1855.....1,092,738.....9,465,642.....1863.....1,640,949.....13,150,936
1856.....1,458,900.....12,366,102.....1864.....1,494,630.....13,214,294
1857.....1,532,358.....13,609,337.....
It cannot be said that any material advance has been made since 1857. This is to be attributed to the stationary—and, in fact, the diminished—demand for railway iron, in consequence of the progress now made with the great Indian lines, and the substitution in part of Belgian for English railway iron in Spain.

WILLIAM VERNON VENABLES, F.S.S., M.S.A., OPENS his ESTABLISHMENT (as at foot) THIS DAY, for the CONDUCT of BUSINESS in the FOLLOWING BRANCHES:—Arbitration, Auditorship, Liquidation of Public Companies, Insurance in all its branches, &c., &c.
Vernon House, 30, Cannonbury Villas, N., and Cannon-street, E.C.,
March 25, 1865.

JOINT-STOCK COMPANIES ACCOUNTS.—A GENTLEMAN, EXPERIENCED IN KEEPING THE ACCOUNTS OF JOINT-STOCK COMPANIES, IS WILLING TO UNDERTAKE TO OPEN THE BOOKS OF ANY NEW UNDERTAKING, OR TO ARRANGE TO KEEP THE BOOKS OF COMPANIES ALREADY ESTABLISHED, at moderate remuneration.—Address, "M. R." care of Mr. Robert Clarke, printer, stationer, &c., 51, Threadneedle-street, E.C.

TO INVENTORS AND PATENTEES.—A GENTLEMAN having an extensive connection with manufacturers, merchants, and others, would be GLAD TO UNDERTAKE the SALE of INVENTIONS or PATENTED ARTICLES, on commission.—Apply to Mr. RAWLEY, patent office, 14, Clare-street, Bristol. N.B.—Continental and foreign agencies solicited.

DEVON GREAT MARIA MINING COMPANY.—A LARGE INTEREST IN THESE MINES TO BE SOLD, at a HEAVY DISCOUNT.—Full particulars on application to Mr. CLARKE, 39, Noel-street, Islington, N.

EAST SETON.—SHARES WANTED in this mine. State number and lowest price.—Address, "A. B.," No. 126, Albany-street, Regent-park, N.W.

MR. E. GOMPERS, MINING OFFICES, 3, CROWN CHAMBERS, THREADNEEDLE STREET, LONDON, E.C. BUSINESS TRANSACTIONS IN BRITISH AND FOREIGN STOCKS AND SHARES. Terms, 1½ percent. Bankers: London and Westminster Bank.

MR. WALTER TREGILLAS, 3, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C., has BUSINESS in the FOLLOWING MINES:—Santa Barbara, Frontino and Bolivia, Montes Aurores, Great Wh. Vor, North Shepherds, East Caradon, and North Rosker.

FOR SALE.—30 Prince of Wales Estate, £354; 10 Princess of Wales, £54. Santa Barbara (Gold) shares about be bought for once. These shares are safe to rise before long. The mine is now about paying all expenses, and will soon make a profit, and pay the shareholders good and lasting dividends.

Mr. TREGILLAS has always business in Santa Barbara shares as BUYER or SELLER at close market prices.

MR. THOS. THOMPSON, MINING OFFICES, 12, OLD JEWRY CHAMBERS, LONDON, E.C. Mr. THOMPSON being intimately acquainted with the LAYET DISTRICT, in the Isle of Man, and its various mines, and continually receiving private and valuable information respecting them, will be happy to communicate with anyone thinking of making an investment in the mines of this district.

MR. JOHN BATTERS, STOCK AND MINING SHAREBROKER, 13, THROGMORTON STREET, LONDON, E.C., is in a position to give sound advice as to the sale or purchase of mining shares, the present being one of the most favourable opportunities for speculation or investment to result in large profits. List free on application. *A SPECIAL BUSINESS in Great North Laxey.

MR. D. STICKLAND, M.E., having had upwards of 40 years' mining experience in Cornwall, several years of which he has had the entire management of mines therein, enabling him to GIVE GOOD ADVICE thereon. MINES INSPECTED and faithfully REPORTED ON. DEALER IN MINING, RAILWAY, and OTHER SHARES. His monthly Circular forwarded on receipt of six postage stamps. Criddle Mine, St. Issey, Padstow, Cornwall.

MR. J. P. ENDEAN, STOCK AND SHAREBROKER 1, CROWN COURT, OLD BROAD STREET LONDON, E.C. Having had 25 years' experience in the mining districts of Devon and Cornwall, and three in the London market, with daily information of important changes from qualified agents, also the most authentic reports relating to other investments, he is in a position to afford the earliest information to his clients, and to direct capitalists whether to buy or sell in mines, railways, or other securities. Investors should apply to him for reliable information relative to the Chiverton Mines also the Camborne and Hlogan districts. A carefully selected list of sound progressive and dividend shares (certains to give a large percentage immediately) forwarded on receipt of 5s. in stamps. Orders and telegrams receive immediate attention.

MINING IN ITALY.—Some 12 months since, a company—the Gonessa Mining Company—under the management of Messrs. John Taylor and Sons, was formed for the purchase of the mineral properties in Sardinia, belonging to the Société des Mines et Laveries de Sardaigne, and the report prepared for presentation to the first ordinary general meeting of shareholders has now been issued. Hitherto the operations of the company have, of course, been limited to the preliminary operations of opening out the mines, yet enough has been done to justify the directors in declaring that they consider the position and prospects of the company most encouraging, and anticipate that handsome profits will be realized from the operations of the current year. An unavoidable delay has occurred in making up the accounts upon the present occasion, but in future the directors hope in the autumn of each year to present the accounts to the end of the preceding June. The first care of the directors was the proper execution of all the formalities necessary for the conveyance of the property to the company, and this was accomplished most satisfactorily: the company received formal possession in May last. Since that time operations have been carried on with great activity. Credit is taken for 1833 tons of dressed ore, of which about 71 tons were taken over from the vendors, leaving 1862 as the produce of the nine months, being about 140 tons per month. The production for the half-year ending Dec. 31 last has amounted to 819 tons, equal to an average of 136 tons per month, which it is expected will be sufficient to cover the expenditure for the same period. During the past few months very heavy rains have fallen in the island, which have somewhat interfered with the dressing of the ore, and, unfortunately, this bad weather has been accompanied by very stormy seas on the coast, which has very seriously impeded the transport of the ore to the shipping ports where it is delivered to the purchasers. The last advices state that upwards of 1000 tons of ore have thus accumulated at the mines and ports. There is reason to hope, however, that fine weather will soon set in, when they will be able to realise the stock.

EAST WHEEL LOVELL.—During the past week this mine has been inspected on behalf of Mr. Rogers, the purser, by Capt. Richard Quantrell, of Trumpet Consols Mine, which is in the same district as East Wheel Lovell. Capt. Quantrell is an agent of considerable experience, and the utmost reliance can be placed upon his report. Other agents have valued the north lode at 4 tons of tin per fathom, which at 55l. per ton would be equal to 220l. per fm. One of the most important features in the report is the assumption that the lode in the south shaft, which was worth from 80l. to 90l. per fm., is likely in a few feet sinking to resume its former value. The report is as follows:—

March 22.—By your request I have this day inspected this mine on behalf of the adventurers, and beg to hand you my report thereon.—South Lode: The shaft sinking below the 20 is down 14 fms.; the lode at this point is disordered by a slide dipping south and west, which will leave the shaft by sinking 2 or 3 ft. After this is accomplished I think there is every probability of the lode resuming its former richness, as there is some good tin in the eastern end of the shaft. There are about 5 fathoms more to sink to communicate with the cross-cut driving from the new shaft in the 40 fm. level. After this is completed there will be a very valuable piece of ground available for stopping, which will greatly increase the returns. The new engine-shaft is sunk about 3 fms. below the 40; here the lode is large, and has a well-defined south wall, with a rich leader of tin, varying from 10 to 12 in. wide. The lode altogether, for the length of the shaft, 18 ft., is worth, from samples which I took and carefully assayed, 200l. per fm. or upwards. This shaft is being sunk by nine men, at 22l. per fm. I should recommend that twelve men be put to sink it with all speed. There is some rich tin ground east of the diagonal shaft, above this level, and also above the 26, east of Burgan's, that can now be taken away at a profit. At the Turnpike shaft, the bob-pit is finished, and they are preparing to sink the box. After this is done, and the flat-roof and pit-work completed, great results may be expected, as the lode is reported by the agent to be worth upwards of 20l. per fm. Looking at the rich tin lodes already discovered, the mine has every appearance of giving large profits to the adventurers.—R. QUANTRELL.

CALDBECK FIELDS (CONSOLIDATED) LEAD AND COPPER MINING COMPANY.—An eminent mining engineer will forthwith examine the valuable and extensive properties possessed by this company, with the view of arranging for the immediate erection of the necessary machinery for their vigorous development.

LEAD ORES.				
Date.	Mines.	Tons.	Price per ton.	Purchasers.
March 22—	Great Laxey	1000	24 4 6	A. Eytan.
22—	Bryngwyn	13	13 8 6	ditto
—	Hendre Ucha	30	13 5 6	Newton, Keates, & Co.
—	Pant-y-Mwyn	12	12 5 6	Walker, Parker, & Co.
—	Fron Hall	8	12 18 6	ditto
—	Victoria	8	12 17 6	A. Eytan.
—	West Fawcog	10	13 6 6	Walker, Parker, & Co.
—	Dyllife	72	13 11 6	ditto
—	ditto	38	13 9 0	ditto
—	Llangynog United	13½	12 7 6	ditto
—	Roman Graves	30	13 5 6	ditto
—	Pennalt	8	12 6 6	ditto
—	Dryngem	16	12 16 0	Newton, Keates, & Co.
—	Dyllife	13	13 5 6	ditto
—	Llanerbyrhaer	10½	13 14 6	Walker, Parker, & Co.
—	Caeconroy	7	14 6 0	Newton, Keates, & Co.

West Chiverton sold, on the 11th March, 100 tons Silver-Lead, for 2030l. 7s. 11d.

BLACK TIN.				
Date.	Mines.	Tons. c. q. lbs.	Price per ton.	Amount.
March 16—	Gl. Wh. Vor	72	12 3 6	4209 2 4
March 18—	Penhalls	4	3 0 24	231 8
—	St. Day United	24	18 3 26	1206 18 2

COPPER ORES.

Sampled March 8, and sold at the Royal Hotel, Truro, March 23.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Great Consols	139	£6 3 6	Hington Down	91	£2 15 6
ditto	129	5 9 0	ditto	89	4 4 0
ditto	127	6 2 0	ditto	80	5 3 0
ditto	124	5 11 0	ditto	67	2 6 6
ditto	123	5 10 0	ditto	60	11 4 6
ditto	122	5 16 0	East Caradon	98	4 16 0
ditto	119	5 5 0	ditto	90	3 14 0
ditto	117	5 17 6	ditto	87	4 11 6
ditto	116	5 18 0	ditto	86	3 19 6
ditto	111	4 2 6	ditto	80	5 19 0
ditto	109	6 4 6	ditto	54	10 14 0
ditto	107	6 8 6	Marke Valley	101	3 2 6
ditto	106	4 3 0	ditto	91	4 1 0
ditto	104	6 3 0	ditto	90	3 8 6
ditto	100	4 4 0	ditto	88	3 8 6
ditto	99	4 0 6	ditto	83	2 17 0
ditto	94	2 12 6	ditto	25	2 18 6
ditto	87	4 3 6	Bedford United	110	4 6 6
ditto	80	4 11 0	ditto	100	4 18 0
ditto	47	9 4 6	Wheel Emma	66	1 16 6
ditto	45	14 15 0	ditto	65	1 10 6
ditto	41	13 10 6	ditto	41	4 1 0
ditto	31	13 13 6	ditto	38	1 1 6
ditto	20	6 15 6	East Russell	79	6 1 0
ditto	16	2 8 6	ditto	21	7 6 0
ditto	15	2 16 6	ditto	21	7 6 0
ditto	14	4 14 6	Okel Tor	57	2 18 0
New Wheel Martha	92	2 0 6	ditto	84	1 13 6
ditto	90	2 6 6	ditto	42	5 16 6
ditto	81	2 0 6	Wheel Friendship	80	3 6 0
ditto	75	2 19 6	ditto	67	9 1 0
ditto	70	2 12 6	Lady Bertha	72	2 16 6
ditto	60	2 13 0	Furadon	51	3 11 0
ditto	58	2 13 0	ditto	17	7 6 6
ditto	50	2 6 6	Gunnlake (Chiters)	60	3 15 6
Hington Down	93	3 16 6	Great Tregone	12	8 2 6

TOTAL PRODUCE.												
Devon Great Con.	2343	£13450	6	East Russell	153	£82	6	0				
New Wheel Martha	551	1335	13	Okef Tor	153	500	8	0				
Winston Down	480	2295	6	Wheel Friendship	147	570	7	0				
East Caradon	475	2478	1	Lady Bertha	72	203	8	0				
Marka Valley	440	1744	19	Furdon	68	289	8	0				
Bedford United	210	960	5	Gunnislake (Clit.)	60	226	10	0				
Wheal Emma	210	426	9	Great Tregune	12	97	10	0				
<hr/>												
Average Standard	£134	3	0	Average Produce	£4	15	0	5%		
Average Price per ton												
Quantity of Ore	.....	5373 tons	Quantity of Fine Copper	.....	309 tons	18 swis.				
Amount of Money		.....	£25,590	18							
<hr/>												
LAST SALE.—Average Standard.....£127										6	0.—Average Produce.....£128	0.—Produce, 5%.
Standard of corresponding sale last month, £128										0.—Produce, 5%.		

WATSON AND CUELL'S MINING CIRCULAR.

WATSON AND CUELL,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.,
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

Messrs. WATSON and CUELL having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special reports and remarks upon Mines and Mining, and the state of the Share Market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. Watson, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with Statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium published in 1843 Mr. Watson was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. Watson and Cuell have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share-dealing than there is at present; and, from the lengthened experience of Messrs. Watson and Cuell, they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON and CUELL transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt, and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON and CUELL also inform their clients and the public, that they transact business in the public funds, railways, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON and CUELL are almost daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property as fluctuating as mining.

Messrs. WATSON and CUELL having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are enabled to supply shares in all the best mines at close market prices, free of all charges for commission.

WHEAL GRENVILLE.—Some time ago we called attention to the importance of the new shaft at this mine, as it was in the heart of the tin ground, and would, therefore, when complete, facilitate the working of the mine, and increase the returns. There is a good lode for tin, the agent informs us, now in the shaft, and he also calculates there is a lot of high tin ground above the 66, and into which levels will now be driven. The 110 fathoms level, west from engine-shaft, continues worth 25s. per fm.; and, what is also very important, a large lode is coming in at the 110 east, already good work for tin, and not yet cut through. Above this level east there is a rise worth 14s. per fm. The 120 west looks like a course of ore coming in. The different points of operation in the mine are worth in the aggregate nearly 200s. per fm.; and the sale this month, notwithstanding the weather and season, will be the largest ever made by the mine, while next month's sale, we hope and expect, will leave a profit. We have thus enumerated a few plain facts in connection with the mine as given to us—facts we do not ask anyone to take for granted on our *ipse dixit*; but we say, send any independent agent to the mine to confirm them or otherwise. If confirmed, as we have no doubt they would be, then we say the shares which a short time since were at 11s. each are now absurdly too low in price. And another fact must not be lost sight of; the lode in East Wheal Vor, who inspected it on the 20th, says—"They have sunk a boundary shaft to the 20 fm. level, but at present it is suspended, on account of water. I would recommend that this shaft be sunk with all speed, as it is going down in an important place; the productive ends in East Grenville approaching in close proximity to this shaft, the 75 west in East Grenville being within 37 fms., the 65 within 7 fms., and the 55 within about 22 fms."

TRUSCOMB MINE.—The majority of this mine has been purchased by Mr. Wescomb, purser of Frank Mills, who is to have the management of it. A shaft has been sunk 14 fathoms from surface, and several tons of copper ore broken from it. The lode can also be intersected 25 fms. deep by a cross-cut in the hill; and to accomplish this object, we understand there is capital enough in hand. The mine is in 5000 shares. Mr. Wescomb writes us—"This is the best set I ever saw in my life. I thought nothing would tempt me to take up a new mine until I saw this." Capt. Rowe, of Wheal Teton, reports—"I do not hesitate to say it is one of the most promising young mines I have ever met with." Several other reports of a similar character have been made; and as the only shares to be disposed of have been placed in our hands, to offer chiefly to the Frank Mills shareholders, at 1s. 10s. per share, we shall publish the reports altogether in a few days. In the meantime, if any of our readers wish to secure a few shares at the issued price (1s. 10s.), they had better apply at once, as after a certain number have been issued, shares will not be had even at double the price.

OLD GUNNISLAKE.—We stated, a fortnight ago, that, owing to the few applications for shares on the part of the general public, and other circumstances to which we alluded, the money subscribed would be returned in full to the applicants. This has now been done, though all, we understand, had the option given them of joining the directors, who have made arrangements to work the mine, and have taken up every share among themselves.

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VAL-SASSAM MINES COMPANY (LIMITED),

SWITZERLAND.
Capital £200,000, in 6000 shares of £33 1/3 each.
£1 per share to be paid on application, and £2 on allotment.
No call to exceed £1, three months to elapse between each call, and not more than £5 per share to be called up, except by a vote of the shareholders in general meeting.

DIRECTORS.
Mr. VALENTINE BAYLER, banker, Colre, Switzerland.
Mr. JOHN BISHOP, (Messrs. Strecker, Bishoff, and Co., merchants), New Broad-street, London.
Mr. JOHN OREED, Director of the Gousses Mining Company (Limited), Ashwick Hall, near Chippenham.
Mr. E. A. FONTFEX, Director of the Cape Copper Mining Company (Limited), Rhod-lane, London.
Mr. F. G. SCHUCH, merchant, Zurich, Switzerland.
Mr. JOHN TAYLOR, 6, Queen-street-place, London.
Mr. RICHARD TAYLOR, 6, Queen-street-place, London.

BANKERS.
Messrs. Barnett, Hoare, Hanbury, and Lloyd, London.
Messrs. S. and J. B. Bavier, Colre, Switzerland.

MANAGERS.
Messrs. Walker and Lumsden, 25, Abchurch-lane, London, E.C.

SOLICITORS.
Messrs. Kimber and Ellis, Lancaster-place, and Gresham House, London.

MANAGERS.
Messrs. John Taylor and Sons, 6, Queen-street-place, London.

SECRETARY.
Mr. W. G. Williams.

OFFICE.—6, QUEEN STREET PLACE, LONDON, E.C.

The object of this company is to work mines of lead and copper ores, rich in silver, within the district of Val-Sassam, in the Canton Grisons, Switzerland.

The right of working all mines, with the exception of coal and iron, within the entire district, extending from Thuis on the well-known "Via Mala," 20 miles in the direction of the Splügen, and, being about 15 miles wide, is secured by a concession for a term of 50 years, granted by the "Landchaft" in 1862.

The conditions of this grant are extremely favourable, as no rent or royalty is to be paid on the produce of the mines, and the only payments with which the concessionaires are chargeable are certain small fines, payable at every tenth year of the term.

Numerous mineral veins are known to exist within this vast area of 240 square miles, some of which were worked by the Romans, and, at a later date, became the source of the fortunes of several wealthy Italian families.

The concessionaires, with the assistance of some Swiss capitalists, have, during the two years which have elapsed since the grant was made, executed a great deal of work in opening and clearing the ancient galleries and other excavations of the two principal mines—viz., Orsera, a mine of argentiferous copper, and Tospino, a lead mine, the ores of which are extraordinarily rich in silver, and have likewise done some exploratory works by new openings as have proved that the mineral veins are numerous, and that they continue for a length of upwards of two miles.

These workings have been inspected by agents of Messrs. John Taylor and Sons; they have reported that—

In the mine of Orsera four principal lodes were worked very extensively by means of adit levels, above which the greater part of the lodes have been exhausted; some arches and pillars, however, remain, consisting of portions of the lodes, and these contain purple and grey copper ore, but extremely rich in silver. Considerable progress has been made in a new level, from a point lower down the mountain side, which will intersect all the lodes below the deepest of the ancient workings, and it is confidently expected that large quantities of ore will be won by this operation.

In the mine of Tospino the ancient workings are less extensive, but it contains a group of lodes so numerous and so powerful as to afford a field for most important operations. These lodes are more or less productive wherever they have been laid open, and at some points yield as much as 2 tons of ore per fm., even at the surface.

Assays made by the agents of Messrs. John Taylor and Sons proved that the ores of Orsera contained in their crude state, as broken from the lodes, from 4 1/2 to 8 1/2 per cent. of copper, and from 80 to 100 ozs. of silver per ton, and that, by washing, these ores might be so concentrated as to yield from 35 to 45 per cent. of copper, and from 250 to 300 ozs. of silver per ton, which would be worth from £80 to £100 per ton. And the ores of Tospino, in their crude state, yielded on the average of a great number of samples 35 1/2 per cent. of lead and 58 ozs. of silver per ton of ore, which would be worth £17 10s. per ton, and by washing these might be enriched to 70 or 75 per cent. of lead and 100 to 110 ozs. of silver per ton, which would be worth upwards of £35 per ton.

Both of these mines lie on the sides of the mountains that they may be worked by means of adit levels to any required depth, and are thus exempt from the ordinary expense of drainage and of hauling, which, in the generality of mines, forms so heavy an item in the working costs.

Abundant streams of water provide ample power for all such machinery as will be requisite for dressing the ores, and the buildings destined to these purposes have been erected on an excellent site.

Every facility for economical working is afforded by the district of Val-Sassam, timber and all other requisite materials being abundant and cheap, and the people being able and industrious laborers.

A contract has been entered into for the purchase of the concession with all the rights appertaining thereto, and the whole of the buildings, plant, machinery, tools, and apparatus, as well as the extensive openings and works of the two rich mines described in the reports, including the stock of ore already extracted, for the sum of £18,000, payable by three instalments.

The mines have been worked since the first of October, 1864, for the account of the company, and from the latest advices it is known that considerable quantities of valuable ores are being extracted.

It is intended that the first call of £1 per share shall be made three months after the date of the allotment of the shares, and the second call of £2 per share six months after the date of the allotment, and it is calculated that the amount of capital thus raised will be sufficient to place the mines already opened in full and profitable working; and no further call will be made except by a vote of a general meeting of shareholders.

The directors have already received, through the bankers of the company in Switzerland, applications for a large number of shares; but they have reserved the right of allotting not less than two-thirds of the whole number in this country.

Copies of the reports of Messrs. John Taylor and Sons, and their agents, Messrs. R. Hennessy Taylor and R. W. Rickard; of Mr. J. Dickson Ikin, civil engineer; of Mr. V. de Baglion, Inspector of Mines, the local agent of the company. Forms of application for shares, and every information may be obtained from the brokers, solicitors, and managers, at the office of the company.

PROSPECTUS OF THE EAST MAES-Y-SAFN LEAD MINING COMPANY (LIMITED), MOLD, NORTH WALES.

Incorporated under the Companies Act of 1862, and Table A of the Act is adopted as the Articles of Association for the government of the company.

Capital £50,000, in 5000 shares of £10 each.
Deposit 10s. per share on application, and £1 on allotment.
Each future call not to exceed £1 per share, and to be subject to one month's notice.
It is not expected that more than £5 per share will have to be called up.
If no allotment be made, the deposits will be returned in full.

DIRECTORS.
CHARLES B. TREVOR ROPER, Esq., Plas Teg, near Mold—CHAIRMAN.
ROBERT A. DADG, Esq., Chetwynd House, Oswestry, Shropshire.
THOMAS HAMMER, Esq., 10, Abchurch-lane, London.
WILLIAM TREVOR ROPER, Esq., the Temple, Liverpool.
FRANK P. MATTHEWS, Esq., Llwyn Offa, Mold.
ROBERT WILLIAMS, Esq., Ty Ucha, Mold.
THOMAS WARDEN, Esq., Osborn House, Edgbaston, Birmingham.

BANKERS.—Messrs. DIXONS and Company, Eastgate-street, Chester.
National and Provincial Bank, Mold.
SOLICITOR.—George E. Trevor Roper, Esq., Mold.
BROKER.—George E. Trevor Roper, Esq., Mold.
SECRETARY.—Mr. A. Caldecott.

OFFICE.—19, PEPPER STREET, CHESTER.

This company has been formed for the development of a very extensive tract of mineral ground, comprising five distinct sets, viz., Brongwyn, Pwll-y-wheel, Fron, Nerguis, and Bryngoleu, which are considered by engineers and practical miners to form one of the richest pieces of mineral ground in North Wales, as will be seen in their reports.

They are situated on the Mold mountains, two miles south-west from Mold, are surrounded by divided-paying mines, and are held by fair and equitable leases for long terms, at 1-12th royalties from the lords of Mold and other owners; the surface area comprises 400 acres, or thereabouts. Several fair-sized shafts, from 60 to 130 yards deep, have been sunk at various points on them, which will be available for future operations, and from some of which ore can soon be raised; indeed, the shaft marked A on the map, on the east or lower portion of the Brongwyn set, was sunk 90 yards to a fine run of ore, which was followed down-hill to the Pwll-y-wheel boundary under the road, where 176 tons of ore were raised out of a very small space, marked black on the map, and the vein, 15 ft. wide, containing a solid rib of ore 2 ft. thick, continued its course down-hill below the water-level.

Pwll-y-wheel engine-shaft was sunk 121 yards deep, and a cross-cut was driven south 80 yards, at the 120 yard level (intersecting in its course three other productive runs of ore), to cut this vein in the Pwll-y-wheel set; this was done, and the ore sunk on for 13 yards, but the water issuing from it was too much for the existing machinery, and the mine was stopped for want of means. A new shaft, marked B on the map, 9 ft. 6 in. has been sunk down 80 yards dry. It is proposed to erect on this shaft a new 70-hp. Cornish engine for pumping, to place it in 24-in. pitwork, and to provide all appliances necessary to drain the ground effectually to a sufficient depth to cut and work the run of ore above alluded to, and such others as may be below it, and within the power of the engine. It is estimated that all necessary operations (including an additional plant on the deep of the property, when the fit place for such shafts have been determined by explorations from shaft B) may be carried out for £25,000, and that ore may be raised in twelve months from sinking.

The several leases of these valuable sets, together with the washing-floors, buildings, plant, and machinery thereon, have been transferred to the company free of every other preliminary expense, by the vendors, for £3000 in cash and 500 paid-up shares of the company (such shares not to be transferable until all the shares have been allotted), and a further sum of £2000 whenever the mine is capable of paying a dividend of 50 per cent. on the paid-up capital. These terms are considered very reasonable, bearing in mind the great worth of the property, and the expense and trouble incurred by the vendors in purchasing the interests of old companies, and obtaining new leases.

These mines have been inspected and reported on by practical mining engineers and mining authorities of high position and respectability, some of whom having seen the ore proved at Brongwyn and Pwll-y-wheel when last at work, speak positively to its existence in very large quantities, and particular attention is requested to their reports, and the map and section accompanying them. Among the principal reports are those of Mr. T. L. Cottingham, mining engineer, Mold; Mr. Robert Williams, agent to the lords of Mold; Mr. Abalom Francis, Meadow-house, Holywell; Capt. John Pryor, mining agent, Mold; and Capt. Francis Evans, Bryngwyn Mines, Holywell.

A considerable number of shares are already subscribed for.

Prospectuses, reports, plans, and forms of application can be had from the secretary, at the office of the company in Chester, or from the solicitor, at his office in Mold. Chester, March 4th, 1865.

ASSAYS AND ANALYSES.—MR. JOSEPH GREEN,

for the past 14 years professional assayer to the Chester Goldsmiths' Company, UNDERTAKES THE ASSAYING AND ANALYSIS OF EVERY DESCRIPTION OF MINERAL.—Assay Office, Chester.

Notices to Correspondents.

PUBLIC COMPANIES LAW.—Can a limited liability company, fully registered and in good standing, alter its constitution, either by special resolution or otherwise, so as to keep the same capital as originally fixed, but divide it into a larger number of shares of a smaller amount per share?—(The reference is, no doubt, with regard to the question asked at the meeting of the Gollivara Company, where certain shareholders considered the amount of the shares is too high to permit of their being negotiated. We need not say that the clause is very distinct that the capital can only be consolidated, and divided into shares of larger amount. We think, however, that there is this remedy for the difficulty complained of. A special resolution could be passed, authorising the transfer of the whole rights, duties, and privileges of the company to a new company (with a capital of 500,000, in 100,000 shares of 10s. each), in consideration of the company paying to the Gollivara Company the sum of 500,000, in shares of 10s. each representing 2s. each paid up, such shares to be distributed amongst the Gollivara shareholders, in proportion to their holding at the time of transfer.)

THE PROPOSED APPLICATION OF LIMITED LIABILITY TO COST-BOOK COMPANIES.—In last week's Journal, we called attention to a proposal from Mr. Fulbrook to amend the limited cost-book partnership by means of the form of company allowed by the Companies Act, and called a company Limited by Guarantee. There can be no doubt of the importance of carrying out some such proposal. As matters at present stand, the mining interest is divided into two classes—the one, residing in Cornwall, and touching any but a cost-book company, which the capitalists out of Cornwall will not look at, but will only invest their money in limited liability companies. This scarcely to be wondered at, considering how many people have suffered by cost-book companies carried on in an improper and inefficient manner. I do not understand how sufficiently to enter into the question, but whoever accomplishes the design of forming a company to meet the views of both classes deserves the thanks of all miners.—J. G. S.: *Milend-road, March 22.*

DRY CRUSHING MACHINERY.—Some time since you described an improved dry crusher, invented, I believe, by Mr. John Walker, and pointed out its great advantage in localities where water is scarce. Will the inventor, or any of your correspondents, inform me through the Journal where the machine can be seen at work, and how much material it will stamp per day compared with the ordinary stamps? The reference, so far as I remember, consisted in using wedge-shaped stamp-heads, mounted in a hopper-shaped bed, with a slot at the bottom to let out the crushed mineral. Were there any other improvement in the machine?—INQUIRER.

POISONOUS WATER FROM MINES.—I had hoped to see some notice taken of your article condemnatory of the bill recently introduced and lost in Parliament, the object of which was to prevent the poisonous matter from mines being thrown into rivers—of the worst bills ever written, though, of course, not absolute perfection. Before you again so unscrupulously condemn, would it not be well to consider that all the poison which flows off with mine water is really valuable metal, which by well-arranged mechanical and chemical apparatus should be made to contribute to the expenses of working the mine. Upon its first introduction the bill would, doubtless, be inconvenient, but the ultimate result would be that many mines now showing a large loss monthly would occupy a respectable position in the Dividend List. Great care should be taken how we slight the utilisation of mine-water.—G. J. B.

GREAT LAXEY.—As a shareholder, I am obliged to Mr. Crofts for drawing attention to the management of our company's affairs; and, as he speaks from experience, I others would feel it an additional favour if he would give some details of the management of the mine, and in particular, in reference more particularly to the competition we may expect our directors will have to encounter in their contemplated manufacturing experiment. The position of our company necessitates the greatest caution; it is therefore, essential that we should be prepared with all obtainable information, to assist in preventing our becoming involved in trading troubles, and which may, with great care, entail serious loss.—ANOTHER SHAREHOLDER: *Liverpool, March 22.*

GREAT LAXEY MEETING, AND CAPTAIN ROWE.—In the Journal of March 11, I find a question took place at the Great Laxey meeting, respecting the building of a chapel, when a shareholder enquired the relative number of miners (employed in the mine) being members of the Established Church compared with other denominations in this place. Capt. Rowe said they were about equal. Permit me to ask Capt. Rowe to point out, through the same medium, the name of one single individual miner working in those mines who is a member of the Established Church in this place, whereas there are hundreds of Wesleyans and Primitive Methodists. The answer is, that a large number of late appeared from the same gentleman on the different lists with which he is connected in this neighbourhood also require investigation.—LAXEY MINER.

SLATE QUARRIES IN WALES.—If any shareholder or director of the Cricketh Quarry, Carnarvonshire, or of the Croser Bach, which is called Slate Mountain, Merionethshire, will write to "Pioneer," through the Journal, I will tell them something new to their advantage.—PIONEER.

WYVILSCOMBE SLATE COMPANY.—There is much written in your excellent Journal concerning Slate Quarries, which appear to be valuable properties. Can any of our readers give me information respecting the Wyvilscombe Slate Company, situated in the parish of that name, in the county of Somerset. I believe not far from Wulfrun. It began well, though hindered at one time by a landslide. I am fearful that directors, manager, and all other officials are buried in another landslide, occasioned by the late wet weather. Any information would be thankfully received by—SLATE.

QUEBRADA COMPANY.—The advance which has lately taken place in the shares of this company, and the position which they now occupy upon the Stock Exchange, induce me to offer, through the Journal, to my fellow-shareholders the suggestion that they should not be led by any market fluctuations and speculations to part with the shares which they have held through a long time of depression. The opinion of the promoters of the company as to its success may be judged by the fact that the promoters' money (some few thousand pounds) is not to be received by them until an amount equal to the whole capital of the company shall have been paid to the shareholders in the way of dividends. The reports from the mine are, doubtless, of almost a fabulous nature; but that very large deposits of copper ore exist in certain localities is a matter of undoubted certainty. The Quebrada Mine will either prove to be one of the most remarkable of these localities, or the promoters and all connected with the management of the company will appear more remarkable as a combination of folly and fraud.—W.

PUDDLING BY MACHINERY.—"G. V." (Mons.)—The furnace invented by Messrs. Walker and Walker was patented in England in 1853; we do not know whether a patent was taken at the same time, but presume so. The process is, we believe, a regular work at the Dowlais Ironworks, South Wales, and the results obtained having been so far highly satisfactory. Mr. Menelaus, the manager of Dowlais, will read a paper before the Institute of Mechanical Engineers at Birmingham in April, which we shall publish in detail, and which will probably contain all the information on the subject "G. V." requires. The mere fact of so thoroughly practical an inventor as Mr. Menelaus having taken up the invention, is a guarantee that much may be expected of it, and we do not anticipate that there will be any disappointment.

GREYNER AND WHEAL ABRAHAM.—It may be very gratifying to hear of the great progress made at these mines; but I, for one, am much disappointed to find that, instead of the "sampling of ore at the end of 1864," we have not got the second engine yet. The contract was made in Dec., 1863, or before that, according to the prospectus. Surely there has been ample time to get the pumping machinery up, and if proper efforts had been made, our shares would not be as they are—15s. to 20s. 6d.—A SHAREHOLDER.

GREAT WHEAL ALFRED.—In July, 1861, the shareholders passed a resolution to wind up this company, and a committee was appointed for the express purpose. They continued raising ore for 18 months, at costs, merchants' bills, &c., of 14,000l., and which ore produced 11,800l., leaving a loss of 2200l. They sold a portion of the materials of the mine for 7300l., as per account furnished in Feb., 1863, when a meeting was held, and a return made to the shareholders of 5s. per share, the total sum returned and distributed to shareholders being thus about 1100l. At that meeting, held on Feb. 11, 1863, the committee were requested to realise the remaining assets at the earliest practicable period, with a view to the final winding-up of the mine. I did by the report in the Journal of Feb. 14, 1863, that the Chairman at the meeting hoped the committee would in about a month or six weeks, be in a position to call proprietors together, and make a final settlement. It is now more than two years since that meeting was held, and that opinion given. The mine materials sold being 7300l., the sum returned to shareholders is about 1100l., and they are kept more than two years without their whist three engines and sundry other materials are realised. Is there any neglect somewhere? Can nothing be done beyond provoking a reply from the secretary that, forsooth, "the committee are doing their best to realise everything, but have not yet succeeded?" Can no legal steps be taken?—A HOLDER OF 150 SHARES.

OLD DOLFRYNGOG MINE.—A meeting is called for winding-up this concern. What pity it is the shareholders do not agree to amalgamate with the United Dolfrynog Company, whose property entirely surrounds the Old Dolfrynog Mine. The United Company have found a good copper lode on their north set, and when their shaft, on the west set, is down 10 fms. deeper they will probably reach the junction of three copper lodes on the site of the Old Turf Copper Mine; and they have also a promising lode on their east set. All the Old Dolfrynog lodes run into one or all of these sets, which are very extensive. The gold lode of Old Dolfrynog runs sharp into the north set of the United, and one of the shafts is down to the junction of the two sets. Here it was that some rich gold was found before the operations were suspended; probably there is more at a greater depth in mine in exploration. The Old Dolfrynog have no machinery, but what will it fetch if put up to auction? Not enough to pay the expenses of winding-up the company. Now, if two companies could hitch their horses together, work could at once be commenced at the shaft alluded to, and, in that case, some sort of prospect might be had out of a return for our outlay, whereas, if wound-up, we, as shareholders, should not get nothing, but would have to contribute to loss something more than we have ready. The attention of shareholders is called to this proposition.—A SHAREHOLDER.

PROTECTION OF INVENTIONS AT INDUSTRIAL EXHIBITIONS.—Your correspondent, Mr. W. Campin, seems to regard low-priced provisional protection as a remedy for the hardship resulting from alleged infringements to inventors who promote their inventions to be original, and condemns the measure of protecting inventions exposed at industrial exhibitions, on the ground the exhibitor may be defrauded nevertheless. For my own part, I think the protection accorded to exhibitors at the great exhibitions of London and Dublin should be extended to exposure at every commercial exhibition remaining open more than one calendar month. By this means true inventors would be able publicly to demonstrate the value of their inventions, and would be a check upon the 99 out of 100 patentees who are altogether void of originality, as no one would supply money for a patent until the invention had been publicly approved, while the true inventor would be enabled to challenge objections without thereby losing his just rights.—INVENTOR.

MILLER'S GAS GENERATOR.—There are one or two points connected with this apparatus which I am sure many of the readers of the Journal would be glad to see explained. I do not exactly understand how a vapour heavier than air would be likely to combine with the air, or to rise above it in the dish-like cylinders; and, if it is lighter than the air, it is difficult to understand what mixture would take place (of course considering the nature of hydro-carbon vapours) that would cause the descent of the carburetted air into the burner. I have had no opportunity of examining Mr. Miller's burner, but am inclined to think that it is the turpentine substitute itself, and not the vapour from it, that reaches the burner. Of course, your correspondent may be able to give a satisfactory explanation of the matter, but I think he should know that the description which has been published is calculated to give rise to such objections.—PETROBRAS.

STN.—Please correct an error made in my first letter on "Mines and Mining in the Marazion District," for "Peel" read "Lemon."—MINER: *St. Michael's Mount.*

ST. IVES CONSOLS.—In Mr. Cuell's "Annual Statistics of Mining," published in the Journal of March 11, Mr. T. Treweek, of Uxley Lodge, is named as the purser of this mine. This was an error, Mr. F. H. Aplice, of Penzance, being the purser.

MAINE BOUNDARIES.—Will some one of your readers kindly inform me, through the Journal, "Does the boundary of a mine set, if a hedge, measure from the centre or quick, or does it follow the custom of the landowner where he claims it?" In other words, is the centre of the hedge the boundary, or is it 4 ft. from the centre?—D. B. D. I am,—"Inquirer" (Llanrhaidar) can find the particulars he requires in our Metal Market Information.

Received.—"C. W. B. (yes)"—"Miner" (St. Michael's Mount)—"R. F. J. L." (Cardiff)—"A Discontented Shareholder"—"Nemo."

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, MARCH 25, 1865.

The Strike, and consequent Lock-out, unfortunately still continue, to the serious loss both of masters and men, and to the probable ultimate gain of the foreign producer. The cessation of the supply of finished iron has naturally had the effect of causing the few manufacturers who have not yet closed their works to be more busy, but it is to be feared that, notwithstanding the fact that the reduction of the make, by the strike and lock-out combined, has already been equivalent to putting all the works in the kingdom on two-thirds time for three months, no permanent improvement can at present be reasonably expected. That iron must be had is evident, for public works cannot be delayed either to suit the convenience of the manufacturer or of his workmen, but the advantage is with those on the Continent who can tender at lower rates, or guarantee a more certain supply. The workmen can urge, no doubt, that if they continue to resist for a few weeks, they will, by bringing supply and demand more nearly equal, enable the masters to grant them the concession they ask for; and such a termination of the dispute might gratify the delegates by affording them a pretext for congratulating the men upon their victory over the masters, but the men would, probably, have much the feelings of the great general who, at the end of the battle, exclaimed,—"Thank God we are not defeated; but one more such victory would ruin us." Both masters and workmen should consider that if, by the long continuance of the struggle, we do not lose the trade, we may introduce a new element of competition which will hereafter seriously interfere with it.

With regard to the substitution of mechanical for manual puddling, we understand that Mr. MENELAUS's experiments on the large scale at Downhills have been so far satisfactory, and as he has during the past week patented some further improvements in machinery for working puddled balls or blooms of iron and steel, it may be presumed that he has succeeded in discovering the defects, and providing a remedy. Whether machine-puddled iron will ever be able to compete with hand-puddled, of course, remains to be proved; but that a very fair quality of finished iron can be produced without the puddler, now appears to be beyond question. Mr. MENELAUS will read a paper before the Institute of Mechanical Engineers, at Birmingham, in the course of the coming month, and no doubt sufficient will then be made known to enable every practical man to judge of the value of the process. We are aware that puddling-machinery has been in operation at the Parkgate Ironworks, Rotherham; it was, however, only a temporary trial, made some months since, with permission, by persons not connected with the company, and came to nothing; but we understand that the failure was not so complete as to prevent further efforts when opportunity offers.

Respecting the introduction of foreign iron, Messrs. PHILLIPS, of the Coal Exchange, write that "It may be of interest to such consumers of iron as may be presently embarrassed by the stoppage of their usual supplies to know that iron of excellent quality is now being daily shipped from various continental sources, in many cases from 10 to 15 per cent. cheaper than Staffordshire rates." The accuracy of the statement no one can for a moment doubt, but the question is whether the quality, excellent though it may be, is at all equal to the Staffordshire iron with which Messrs. PHILLIPS compare it. It may be added, also, that iron ore, as well as iron, is being imported, for it appears that a contract has been entered into by certain South Wales ironmasters for the supply of 13,000 tons per annum from some mines near Cherbourg.

As an evidence of the desire of the masters to afford the men every facility for terminating the lock-out, if they desire it, a letter from Mr. W. S. RODEX, the Chairman of the North Staffordshire Committee of Ironmasters, may be referred to. Alluding to the statement made by Mr. BAKER, a North Staffordshire delegate, at the meeting of the London Trades' Delegates, on Wednesday evening—"If, however, the masters would consent to open their works to the men of South Staffordshire, then the men of North Staffordshire were willing to resume their work, and leave the question of wages to be settled by arbitration." Mr. RODEX observes that the wide-spread distress caused by this unhappy dispute is regretted by no body of men more sincerely than by the ironmasters themselves, and, assuming that the delegate spoke with authority from the puddlers, he will, upon receiving an official intimation to that effect, bring the proposal before the ironmasters, and use his influence to endeavour to have it accepted. As there can be no doubt that both masters and men are equally alive to the desirability, for their common welfare, that the trade should not be permanently interfered with, we regard the step here taken as that which will probably lead to the settlement of the present dispute, and at the same time direct attention to the means which will be applicable to the settlement of future disagreements of a similar nature. It can matter nothing, either to the masters or the men, whether there is union on both sides or no union on either, as in either case both parties are enabled to secure that satisfaction of their claims to which each is equally entitled.

The present deplorable struggle between the ironmasters and the ironworkers affords the best possible opportunity to the foreign emigration agent to use his endeavours to persuade the workmen to emigrate; and when such statements as those made in the letter of Mr. THOMAS GEMMELL, advertised in the MINING JOURNAL of Nov. 19, are put forth, there certainly would appear to be a wide opening for the working man in the United States. It will be well, however, for all to carefully consider whether there are any grounds for the glowing promises made; and as the truthfulness of Mr. GEMMELL's statement is actually denied by men from this country who are employed on the mines referred to, it is not improbable that the position of the American ironworker is as far overstated as that of the American collier has been in Mr. GEMMELL's letter. It will be recollected that he stated that in Maryland and West Virginia colliers' labour was very scarce; that labour was at a premium; that 12s. per day could be earned; that the truck system was unknown, and so on; but, inasmuch as it now appears that these promises could not be borne out, it is not probable that the ironworkers who emigrate may find themselves equally deluded, and discover, when too late, that the result of their emigration has been the reverse of improving their own position.

The fallacy of Mr. GEMMELL's statements in the Journal was at once observed by those at the mines in the district of which he wrote, and the deputy at the Franklin Mines, Mr. RICHARDSON, has written a very careful letter to the *Miner and Ironworker's Advocate* (with a request that it should be copied into the MINING JOURNAL), to refute the assertions; and, as it is endorsed by men who have emigrated from Great Britain, and are well known here, it may be well to publish their view of the case. The signatures are GEORGE SMITH, PETER GRANT, JAMES MALOT, and EDWARD LOUPE, from the North of England; EDWARD WILSON, from Staffordshire; WILLIAM HART, from Lancashire; JOHN SCOTT and JOHN SMITH, from Scotland; and JOHN REESE, from Wales. The good faith of Mr. GEMMELL's appeal seems to be more than questioned by the men, for the letter says—

"If Mr. GEMMELL performs all he promised there, he will do much better by emigrants than he ever did by his old hands. But let us see what is in the letter: He says if he had men enough he could get out and sell 400 tons more coal every day than he does at present. On seeing this statement we immediately sent six or eight out of the 30 or 40 men which we could almost any time spare him, to engage work for themselves and about thirty others. The pit boss at the Hampshire mines, seemed to be angry at being asked for work, and replied, that if twenty of the men there now were to leave there would not be a bit too much work for the balance. Mr. GEMMELL's agent, at Llanwellyn intended to bring out any men, for that he had tried that game once before, and that when the men came out they cut-throated him, and skedaddled. I went myself to Midland, to look for work, and meeting some of the men, they told me they had made \$10 each that week. There are 25 men to dig 250 tons per week—that is ten tons each. This does not look much like wanting men so bad as Mr. GEMMELL said he did! He told the men of England that the Truck system was not known here. Well, I do not know that it is, except at the Hampshire mine, where there is a store kept, near the Baltimore and Ohio Railroad depot, but whether by Mr. GEMMELL or his superintendent I know not; his men, however, know that they must deal in it, and pay \$14 per barrel for flour, which they can obtain elsewhere for \$12.50 to \$13, and \$2.50 per gallon for lard oil, which they can procure elsewhere for \$12 to \$2.50. Any miner who takes his month's provisions at this store, pays twenty-five per cent. more than in any other store in the

neighbouring towns. It is true that the men may not be absolutely ordered to buy in that store, but if the miner buys his provisions elsewhere he must bring his load to the coal cars, at the foot of the plane, from whence it must be drawn up an incline of a mile and a half to an elevation in the mountain 2000 feet high, to which the approach for wagons, by the road, is so steep as to be almost impassable. If their provisions are bought in the store of the depot, they can be taken up on the cars, but not otherwise, unless the woman can conceal them under their shawls, or the men under their jackets. So much for what he says about the Truck system! Mr. GEMMELL spoke the truth when he said the country was hilly, as you will readily suppose when you know that in a distance of a mile and a half the altitude varies 2000 feet; he also spoke the truth when he said he had some good houses in Midland."

The endeavour to deter emigration is especially disclaimed—the sole object of the letter being to publish the truth of the case; they wish the emigrant to be wary lest he be entrapped. If the emigrant comes to the country on the recommendation of his friends or relatives, who are already there, they think he would be much more safe, for the hearty welcome which would be given by the hand of friendship would be much more reliable than that given by interested speculating capitalists. As those who have emigrated from this country to the colliery districts of America have discovered how easy it is to be deluded by speculating capitalists and entrapping emigration agents, so ultimately, we opine, will the operative ironworkers discover how fallacious it is to suppose that wages for any class of labour can be maintained at a fixed rate regardless of the state of the market; and it is to be hoped that the time is not far distant when, by caring to think for themselves, they will be enabled to avoid the delusions of those of their own body who so injudiciously direct their movements.

MANUFACTURE OF IRON—IMPORTANT IMPROVEMENTS.

PRODUCTION OF CABLE IRON BY BOILING.

The remark that iron manufacture is in its infancy has often been repeated of late, and from the many revelations almost daily made, we have cogent reasons for believing in the correctness of the assertion. The improvements of recent dates, however, consist of mechanical applications which are attended with considerable expense, entailing the alteration of existing furnaces, and other appliances for the reduction of the raw materials into a marketable state, while, in some instances, no less an amount of outlay than the construction of entirely new apparatus is involved, thus necessitating the expenditure of a very large amount of capital.

The improvement to which we may now direct attention is of a chemical nature, to which our own attention has been drawn by the registration of an invention by Mr. R. T. Crawshaw, of Cyfarthfa Ironworks, Merthyr Tydvil, ironmaster, and Mr. J. A. Lewis, of Cyfarthfa Ironworks, agent, for "Improvements in the manufacture of puddled bar, or No. 1 iron, and every description of malleable iron." It is stated that the objects sought by the invention are the production of No. 1, or puddled bar-iron, direct from the pig, without recourse to the "finery" process, giving to the iron in the puddling (or rather, boiling), and all subsequent processes, a degree of tension and ductility fully equal, if not superior, to that obtained by the old and more expensive method of introducing the iron into the puddling-furnace partly in the state of pig-iron and partly in the state of finery metal, to more thoroughly revive the iron, and thus obtain a better yield, and to facilitate the separation of foreign matters from it, thus increasing the amount of work to be done, or the quantity of No. 1 bar, and any class of finished iron to be produced within a given time.

There can be no doubt that the best process for the manufacture of iron is that which is most efficient and economical, and leaves the particles of the metallic mass in the condition most favourable to the operation of the laws of cohesion. It is equally above dispute that the processes hitherto practised have attained this end only partially, and are dependent on the direct action of heat and atmospheric air. The liquefaction in the high temperature of the boiling furnace of the mass operated on prevents, nearly altogether, the action of the elements of the air, the surface only being exposed to them, except when agitated by the puddler's bar, or other mechanical means. Here, therefore, is a defect in one essential point professedly sought in the operation; and were the subjection of the whole mass to the action of air attained, simple atmospheric action would be ineffectual, as the impurities combined with the iron are not separable by this means alone. The chemical affinity between them and the iron requires to be overcome by the presence of other elements for which they have a greater affinity, and which would not combine with the iron. It has, therefore, we presume, occurred to the patentees of this invention that by the introduction into the boiling (or puddling) furnaces, at the proper stage, and in proper quantities, of any material or materials fulfilling the conditions implied as necessary, the purification and, consequently, improvement of the quality of the iron will be accomplished. Just to show how far this end is accomplished by the present invention, we will quote a few of the chemical changes which the patentees state are brought about by the introduction into the furnace as described of the ingredients used—sulphate of iron and oxide of lead. "1. The conversion of the carbon of the mass into sulphure of carbon by the decomposition of the sulphate and its removal by sublimation.—2. The separation of the siliceous and argillaceous substances by the lead of the oxide forming by their union a matrix from which the iron readily precipitates.—3. A rapid elevation of the temperature of the mass operated on by the evolution of oxygen from the acid of the sulphate of iron and the oxide of lead producing suddenly a greater liquefaction, which facilitates the separation of foreign matters, by the laws of gravitation of substances of different specific gravities."

The advantages of the present invention are numerous and important. By its adoption the "finery" process is swept entirely away, as by the use of these ingredients we find that iron not only of ordinary quality, but of the highest qualities of tension and ductility, is procurable; and we have seen a sample of No. 2 bar, 1 inch square, manufactured by this means, which had been tested at the works of extensive chain makers of high standing, and their certificate of the strain which this iron held states—"It held at 28 and broke at 29." This contrasts extremely favourably with the average of the best cable iron, which, we believe, is about 25 tons to the square inch. This same iron, beaten out under the blacksmith's hammer, was punched and twisted without any perceptible flaw. The pig-iron used for the production of this iron, we are informed, was of inferior quality, proving that, after all, the main point to be aimed at in the manufacture of good iron is the separation of foreign and deleterious matters from the metal. It, therefore, follows that another advantage of this invention is that no iron, however inferior in quality, once brought under its influence, is any longer unmanageable or ineligible, and consequently a great economy is effected in the barthen of blast-furnaces, which would be of incalculable benefit, not only to ironmasters, but to mankind in general. The extreme ductility given to the iron in all processes after the application of this invention effects a great saving also in "crop ends" of bars and rails, diminishing, as it does, the quantity of bad edges. There will also be considerable economy effected in fuel, as by turning out a greater amount of work within any given time the quantity of coal to the ton of iron must of necessity be lessened. As we shall have something more to say on this subject shortly, we will not now go into further details, but will content ourselves with stating that we are assured that the total cost of this application will not exceed 6d. per ton of No. 1 iron produced, as the reagents exercised are so powerful that their effect is maintained throughout any subsequent processes it may be necessary for the iron to undergo, and, further, that all the arguments brought forward in its favour are based on experiments of sufficient magnitude to warrant their correctness in practice.

The names of the gentlemen appearing as the patentees of this invention are a sufficient guarantee for the carrying out of its benefits. Mr. Crawshaw is, as every one concerned in the manufacture of iron is aware, of the highest standing as an ironmaster, representing great wealth and ability, while Mr. Lewis is an agent at Mr. Crawshaw's extensive works, and combines with theoretical knowledge, the fruit of many years' application, sound practical experience in the manufacture of iron in all its stages.

GAS IN PARIS.—The annual meeting of the great Parisian Company for Lighting and Heating by Gas has been held. The dividend on the shares for 1864 was fixed at no less than 4l. 4s., or 21 per cent. The business of the company is stated to be immensely extending, and more than half a million of additional capital is to be raised by obligations, in order to put the works and canalisation *en rapport* with the increased demand for gas.

TRADE WITH MEXICO.—The exports of coal, cinders, and culm to Mexico amounted, in 1859, to 3111 tons; in 1860, to 1965 tons; in 1861, to 4566 tons; in 1862, to 12,776 tons; and in 1863, to 8412 tons. The exports of wrought and unwrought iron to Mexico experienced a great expansion in 1863, having amounted in that year to 8868 tons, against 695 tons in 1862, 721 tons in 1861, 887 tons in 1860, and 271 tons in 1859. The value of the steam-engines exported to Mexico in 1863 was 795l., against 2072l. in 1862, and 58l. in 1861. The value of other machinery sent in the same direction in 1863 was 15,406l., against 8164l. in 1862, 7308l.

in 1861, 9049l. in 1860, and 3912l. in 1859. The value of the tin-plates exported in 1863 was 5051l., against 4224l. in 1862, 2525l. in 1861l., 2278l. in 1860, and 3375l. in 1859.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

MARCH 23.—The Lock-out continues to absorb the attention of the trade, and it threatens, if maintained, to absorb all the means, the health and strength, nay, the very lives of the population employed in the Iron Trade, and the many branches depending upon; whilst on the same vortex is flowing the capital of the masters. Combinations to maintain or advance the rate of wages ought to be of great advantage to balance the awful loss and injury they entail; and the only hopeful feature about the present struggle is that it exhibits on such a terrible scale the extent to which, by hostile combinations, masters and men may injure each other, and the public in general, that it may be hoped that on both sides there will be a greater readiness to listen to any proposal which appears calculated to prevent these terrible struggles, and to render both men and masters exceedingly reluctant to engage in such mutually destructive contests.

The new facts are not numerous, but they are important. On Tuesday, the Earl of Lichfield, Lord Lieutenant of Staffordshire, presided at a meeting at Hanley, in the Staffordshire Potteries, for the purpose of celebrating the opening of a Working Men's Club. In the course of his address the noble lord referred to the strike and lock-out, the struggle taking the former aspect in that district, and he said:—

He had, and they had all, heard it said that the origin of the strike in that part of the country was owing to special circumstances which did not exist in other parts of the country, and that the men who struck, not being willing to accept the wages which were accepted in other districts, did so because they were peculiarly situated. He was not going to express any opinion as to whether they were right or wrong, but he must tell them that he for one, and as one of the impartial public, had not been satisfied with these special circumstances were. With regard to these strikes, the most effectual solution of the difficulty, which might with advantage have been introduced, was some plan of arbitration, which could have been acted upon by mutual consent; and another was a good understanding between employer and employed. (Applause.) If at the outset of this strike it could have been shown by those who employed them, through such an arbitration as he should like to see established, that their circumstances were special, and that they had a claim to somewhat higher wages than were being given in other parts of the country, he was quite sure that those employers—if it had been brought before them in that way, so clearly proved as it must be when a case of this sort was brought to arbitration—would, from what he knew of them, have been found ready, and willing, and anxious to act upon the result of a system, which he was quite sure they must agree with, and which, in his view, was by far the most satisfactory manner in which they could be asked to deal with disputes with those whom they employed. His lordship also pointed out the apparent anomaly of the men in that district, whilst they said their circumstances were peculiar, acting in co-operation with Unions at a distance, and then acting in opposition to those Unions, and said that on all these points the public required information.

To-day the Committee of the Ironmasters' Association for the North Staffordshire district resolved to invite his lordship to preside at a meeting at Stafford, at which representatives of the North Staffordshire men and masters should be invited to meet those of the men and masters of South Staffordshire; and that the North Staffordshire men should be requested to state what are the peculiar circumstances which, in their opinion, justify them for demanding higher rates of payment than those given to puddlers in other districts. There can be little doubt that Lord Lichfield will accede to the request, and that the public will have an opportunity of hearing what grounds the North Staffordshire men have, or think they have, for their present course, which is entailing such widespread misery.

The effect of the Trades' Union meeting, in London, last week, has proved as prejudicial as was feared. It led the representatives of the Brierley Hill Executive to abandon the policy to which they were pledged, of condemning the North Staffordshire men for striking against the reduction, and thus justified the previous doubts entertained of their sincerity in so condemning it; and they were induced to abstain from taking part in the meeting at York, which was called by the men and masters in the Northern district, with a view to an amicable conference, and thus they closed one of the most promising openings for reconciliation. The meeting in London this week was somewhat more moderate, and there are signs, on both sides, of a disposition to accept a conciliatory course.

There is reason to think that the masters do not, and never have, intended to protract the lock-out *ad infinitum*, in case the North Staffordshire men should prove obstinate. It is stated though, that the decision to close all the works would probably bring the dispute to a close speedily; but that, if it did not, the masters had in store a weapon in the use of which they would be far more powerful than the men. This was suggested in this letter last week, though the writer was not then aware that it was regarded by the masters as the policy on which they were prepared to fall back. It is understood that in case, from the great misery which the lock-out inflicts, it is desirable not to protract it, a general fund will be raised by the united ironmasters, for the purpose of compensating the North Staffordshire ironmasters for the loss which the strike occasions them, on the principle that as the latter are fighting the battle of the whole trade, the whole trade should unite in supporting them. Whether this help would take the form of supplying puddled bars, or of positive contributions, partially to recompense the proposers for the stoppage of their works, remains to be decided, but the masters, having this strong weapon in their quiver, feel the utmost confidence in their ultimate success in resisting the demands of the North Staffordshire men. It is to be hoped, however, that the necessity of resorting to these further measures may be obviated by an arrangement of the dispute.

At the weekly open-air meeting of the ironmasters at Wolverhampton, yesterday, there was again a numerous gathering of the men on the opposite side of the street; and demonstrations of a somewhat threatening nature were made by some of them. The town authorities have decided for the future to prevent these street gatherings.

It has been stated that Messrs. Lloyd, Foster, and Co., of Wednesbury, have decided to re-open their ironworks. This is, however, not true; a similar statement was made last week, and contradicted. The only case of importance in which a master has yielded has been that the works of Mr. Thomas Wells, of Moxley, near Bilston, had been started.

REPORT FROM MONMOUTH AND SOUTH WALES.

MARCH 23.—The Iron Trade is passing through a remarkable ordeal, and one that will leave its mark for, perhaps, ages to come. Of all the great iron-producing districts of the kingdom; Shropshire and South Wales are now the only two where the works are going on as usual. It was stated last week that prices showed a tendency to increased firmness, consequent upon the Lock-out; and this week I have to report a positive advance of from 2s. 6d. to 5s. per ton for certain qualities. Many buyers are now obliged to resort to this district who always before patronised Staffordshire and the North of England; and should the lock-out continue for any length of time, it is very probable that a large quantity of foreign iron will be imported. This deserves the serious consideration of both men and masters, for if foreign iron is once successfully introduced, it may lead to a complete revolution in the iron trade of Great Britain. The advances from the American market are unfavourable, and prices, it appears, have declined at New York. Had it not been for the lock-out, this would have had an important influence on matters in this district, and there is but little doubt that a reduction in quotations would be the result. Dullness still characterises the Tin-plate Trade, and prices have not improved. It is once more reported that the Treforest Tin-plate Works, the property of Mr. Crawshaw, which have been at a standstill for years, are about to be purchased by a joint-stock company. In the Coal Trade there is a considerable business doing, and the collieries are fairly employed. Quotations for both steam and house qualities are well maintained.

Reference was made in last week's report to the opposition by the public bodies of Swansea to the proposed amalgamation of the Vale of Neath with the Great Western. It appears that Swansea is not to be alone in the opposition, for the colliery proprietors and other large freighters of Merthyr and Aberdare are also taking steps with the view of opposing the Union, without ample guarantees being provided for the public interests, and more especially that proper facilities should be afforded for the immense mineral traffic of the district. Once the amalgamation is carried out, the Great Western will have a complete monopoly of the trade to Briton Ferry, Neath, Swansea, and ports to the west, so that it is of the utmost importance that the vast power which will then be wielded by the company shall be placed under such restrictions as will fully protect the interest of freighters.

The collieries of Messrs. Vipond and Co. are about to be transferred to a limited joint-stock company. The members of the firm will take a large interest in the company, and will continue to give the benefit of their experience in the management. The arrangements for the transfers of the properties are already nearly completed, and it is expected that the whole of the capital will be privately subscribed.

The advantages which the east bank of the U.K., at Newport, presented for iron ship-building are about being turned into practical account by Mr. Spittle, the extensive ironfounder of that town. The necessary preparations have been made for laying down an iron vessel of 400 tons burthen, and a sister ship of a like burthen will shortly afterwards be built, both being intended for the same trade.

The arrivals at Swansea include the Delaware, from Coquimbó, with 169 tons copper regulus, 88 tons bar copper, 266 tons copper ore, for Chas. Lambert; the Jacinth, from

Cherbourg, with 77 tons iron ore, for Walters and Co.; the Jean Baptiste, from Cherbourg, with 89 tons iron ore, for W. Crawshaw; the Robert Bright, from Caldera, with 380 tons copper regulus, for H. Bath and Sons; the Mesonge, from Cherbourg, with 110 tons iron ore, for Walters and Co.

REPORT FROM NORTHUMBERLAND AND DURHAM.

MARCH 23.—The Coal Trade here continues for some classes of coal good, the demand being brisk for house, steam, and gas coal. The demand for coking coal and furnace coal generally in Durham already begins to waver, consequent on the unfortunate Lock-out of the ironworkers. On the Wear most of the yearly bindings are over, many of them having taken place earlier than usual, and the remainder on the usual day, March 11. At all the collieries, scarcely with an exception, a proper understanding has prevailed, the demand for men being good, and score and tonnage prices have had an upward tendency, in many cases from 7 to 10 per cent. having been added to the price, without any solicitation on the part of the men. Looking at the state of matters in the county of Durham, both the employers and employed have every reason to congratulate themselves on the absence of any Union; it is quite evident that this state of things has conducted much to the interest of the men, as the natural competition for their services, caused by the demand for coal, has improved their prices in due course. This appears to be a natural and healthy state of things, and we hope it may long continue. In Northumberland both masters and men have a Union, and perform the one balance the other, and the effect is really to render the whole system ungainly; but there appears to be more freedom for both parties when no combination exists.

With respect to the Iron Trade, the lock-out has come like a pestilence to mar its prospects, and spread famine and misery through the land. The origin of the dispute is, of course, well known to the public. With respect to the policy acted upon in carrying out the lock-out, various opinions are expressed here. The step is a bold and very serious one, and should not have been acted upon if any other mode of settling the business could be hit upon; such is the opinion very generally expressed. It is clear that the conduct of the men in ordering the strike in North Staffordshire was most unjust and impolitic to the last degree, for they must have foreseen that the masters would divine their policy. They have forced the masters to combine, in spite of many almost insuperable obstacles to that course; and the bitter fruits of their conduct will be felt not only by themselves, but by large numbers of people connected indirectly with such works. The conduct of the men also must destroy the Union, as they have repudiated the very principles they themselves brought into action. But it has been considered by many in the North that the policy of the men might have been thwarted by a more simple course, one, certainly, involving much less serious issues—that is, by simply assisting the North Staffordshire masters. This course, it is thought, might have proved quite as effective, and it contains certainly much less risk than the one taken.

With respect to the effect likely to be produced on the coal trade, it appears to be the opinion in well-informed quarters on Newcastle Quay, that should the lock-out continue any considerable time, at least one-half the collieries in Durham will be brought to a stand, as the works in that part of the district are many of them producing coking and furnace coal, &c. The effect, therefore, on the district will prove most ruinous. At all the great ironworks—Jarrow, Walker, Consett, &c.—much anxiety is felt by all classes of workmen and tradesmen as to the course likely to be taken, as already we have accounts of the lock-out being at an end partially in Staffordshire; it is hoped that some settlement will be arrived at shortly. What course of action may lead to the termination of the lock-out is at present impossible to point out, but there appears to be a disposition on the part of the men at some of the works to enter into an engagement to guarantee that they will render no assistance to the men of North Staffordshire, and it is possible that on some basis of this kind an agreement may be made. At any rate, such a result is most desirable.

REPORT FROM DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

MARCH 23.—The great Lock-out in the Iron Trade is the all-absorbing topic in commercial circles, and calculations have been made to show that about 133,000, including the families of the men, are now without the means of subsistence, except what they can get from Union relief or voluntary charity, and that about 60,000 are in a similar position in the North of England. The struggle between capital and labour which this lock-out has given rise to has become a desperate trial; the men are determined not to yield except by sheer necessity, and the masters are equally resolved, but there is a feeling amongst the smaller capitalists indicating their great desire for an immediate settlement, and resumption of work, but the phase is so very comprehensive, and the united action of each party so great, that an immediate, or even early, settlement is very improbable. The lock-out has not affected these counties so much as was anticipated—indeed, it has made those firms which did not subscribe to the lock-out resolution extremely busy. In the majority of instances, too, the men submitted to the reduction proposed, and it is the general opinion of those not actually in the iron trade that the men who really did accede should not be visited with the penalty of a lock-out. The emigration agents are very active in inducing those men who are disposed to leave the country to do so, and special terms have been made for that purpose. There is a steady demand for manufactured iron, considering the crisis now existing, and the orders from the Continent are of a satisfactory character. The Steel Trade is not so brisk, partly arising from the questionable supply of iron during the lock-out, and partly from the absence of spring orders. The orders for rolling-stock have latterly been unusually large, and all the manufacturers are exceedingly busy in the completion of orders. The men in most of the ironworks now in operation have ceased from the Union.

The Coal Trade continues active, so far as regards the demand for the best steam coals, and those required for household purposes. The consumption for ironworks has been very materially lessened, and will continue to be so until the lock-out shall be terminated. The Hull and Grimsby export trade has been affected, owing to the late severe frosts having closed some of the northern ports. The enquiry for coke has increased, but the stocks already in hand are such as to make the extra demand almost unmet. The Great Northern Company are adding to their rolling stock, and much attention is paid to the wants of the South Yorkshire coal owners. The Great Northern's hostility to the South Yorkshire has caused a strong feeling in favour of the Great Eastern line. The competition which would have been brought into South Yorkshire led the coalowners to believe they would get coals to London at a very cheap rate, by its competition with the Great Northern, but now hopes have been turned to disappointments.

Some dissatisfaction seems to exist with respect to the Parkgate Iron Company, a formal protest having been sent to the directors by Mr. F. Rumms, of Queen-square, Westminster, against the transaction of any business at the meeting called for to-day, and most especially against the fixing or apportioning of the remuneration to be paid to the directors, until the accounts have been made up and distributed amongst the proprietors. Mr. Rumms complains that the notice is unnecessarily insufficient, and that a larger amount of the stock being held in London than elsewhere, the first general meeting should have been held at the registered offices of the company in London, and not at a remote place like the Parkgate Works. He suggests that the meeting should be held, *pro forma*, at the works, and adjourned till such date as will give sufficient time for making up the accounts and their distribution, and that such adjourned meeting be held at the London offices, when the time can be fixed for ensuing ordinary meetings.

The Inspectors of the Midland Iron Company have discharged and completed their trust, and handed over the works to the new company in a state of thorough repair, and in a condition much superior to that in which they found them. This is consequent upon the complete renovation resulting from the lamentable accident of December, 1862, the entire cost of which, exceeding 4000*l.*, was paid out of profits. With the final dividend declared, and the amount at which the shares are taken, the creditors will have received 9*s.* 4*d.* in 12*s.* on their claims, with a fair and reasonable prospect of a remunerative future dividend upon the shares of the new company. After the usual business of presenting accounts, declaring dividends, &c., had been disposed of, it was resolved that the cordial thanks of the creditors are due to the Inspectors, and are hereby tendered to them, for the efficient and satisfactory manner in which they have discharged their duties; and that the sum of 250*l.* be presented to them out of the funds of the Midland Iron Company for their services.

The Chesterfield Gas and Water Bill has been before a committee of the House of Commons this week, with Mr. Jackson, one of the proprietors of the Clay Cross Company, as the committee chairman. The Town Council of Chesterfield opposed this bill on the ground that the rapid increase in the population from mining operations had been such, that with the extended area proposed, the supply to the existing population would be jeopardised. The increase has been almost unprecedented, amounting in some instances to 227 per cent. Mr. Jackson intimated, and his knowledge of the probable further mineral development of the district is no mean authority, that, however great had been the increase in mining operations during the last ten years, it was nothing compared with what it would be in the next ten years. The works now forming are of great magnitude, and as the coal-seams have been wrought extensively during the last two years, not only by existing companies, but by new ones, the trade and population of the mineral field of Derbyshire must be greatly augmented.

On Saturday Mr. Martin Seymour, the resident viewer of the Staveley Coal and Iron Company, breathed his last. The deceased gentleman entered the service of the late Mr. Barrow, who, in appreciation of Mr. Seymour's talents, gave to one of his most productive collieries his name. Mr. Seymour had only been ill a few weeks. It is not known whether, under the new régime of the limited company, any other gentlemen will be appointed to fill the resident viewer's office.

Though the Market is entirely flat, there has been little disposition to invest in our local stocks. Bank shares are tolerably firm, considering the Birmingham shock, but railways are dull, and mining shares are a drug upon the market. The dullness of the general trades, coupled with the lock-out, produce an influence upon our share markets.

SHEFFIELD, MARCH 24.—The chief subject of conversation in manufacturing circles here is the great Lock-out in the iron trade. Some apprehension has been felt lest the steel and general trades of Sheffield should be paralysed by a want of iron. We are glad to say that there is no danger of such a result. In the manufacture of steel for cutlery and all descriptions of edge-tools, Swedish iron is mainly used; and those firms which use English iron have stocks on hand which will last for months, with an ample reserve in the Swedish and other iron districts of the Continent. The funds of the lock-out here are very low, in consequence of the large sums contributed to Leeds during the lock-out last year. They are under the Gateshead executive, who, in their efforts to bring about a settlement of the dispute, have allowed the Brilley Hill executive to anticipate them with the London societies. At present they are receiving no relief, either from London or Gateshead, and those of them who have not been provided are already feeling the pinch of poverty. Men have been sent out to collect subscriptions from the other trades in the

town, who, however, are showing some tardiness in giving aid. Unless the lock-out here are allowed to share in the support furnished from London, they will speedily be in bad plight; and the masters are quite determined to continue the lock-out until some general terms of arrangement are come to. At the Parkgate and Midland ironworks, in the Rotherham district, exceptional circumstances have induced the masters to continue work, and Messrs. Dawes, of the Milion Works, adhere to the same decision, taking from their men an undertaking not to support the turn-outs in Staffordshire. Great complaints are made here of the obstinacy of the North Staffordshire men, backed by the Brilley Hill executive, to whom all the mischief is attributed. The emigration scheme, which has won approval in the North, has been considered at a meeting here last night, and approved. The steel, armour-plate, and general trades here are duller. The demand for coke and furnace coal has fallen off, the house coal trade being alone active.

BARNESLEY, MARCH 24.—The lock-out in the North of England and Staffordshire has acted most beneficially for this district, where the men have agreed to accept the reduction, and promised not to aid their brethren on strike. At Milton, Elsecar, and other works in our immediate neighbourhood the men are fully employed, puddlers and millmen alike. The men, no doubt, take a deep interest in the struggle, but so far they have kept good faith with their employers. The dispute, and so many works being closed, has caused a large number of orders to reach our ironmasters from quarters not previously sending. The demand for plate-iron, more particularly, for the extensive shipbuilding yards on the Thames, Liverpool, and the North of England, are such that the orders far exceed the means of supply for months to come. In merchant iron, including rails, bars, angle iron, &c., there is a very good business doing, and for a long time to come the men are assured of plenty of work. The first movement made in the South Yorkshire district for putting in the hands of a limited liability company some of our most extensive works was commenced on Thursday, when the Messrs. Mitchell, of Worsbrough-dale, called a meeting at Wakesfield for the purpose of forming a company to carry on their extensive works as mechanists, colliery owners, wagon manufacturers, iron makers, &c., was called. That a company, and a most successful one, will be formed there is little doubt, and from the great success which has so far attended the operations of the Messrs. Mitchell, the shares will be in great demand. The senior partner is well known as a man of great and persevering ability, whilst his son is well known as an engineer of more than ordinary talent in all matters relating to the management of collieries and ironworks.

NOTES FROM LECTURES BY DR. PERCY AT THE ROYAL SCHOOL OF MINES.

In the Welsh copper smelting process, already described, we have seen that the first operation generally consists in a roasting or calcination of the ore. We have seen, also, that the object of this calcination is to eliminate a certain quantity of sulphur from the ore. The sulphur leaves the furnace in the form of sulphurous acid, and escaping in clouds into the atmosphere poisons the smelter, and destroys the land for agriculture. Despite many attempts, no means were known up to within a very recent period for economising this great mass of sulphur escaping annually into the air in the neighbourhood of Swansea; and it has remained for Mr. Peter Spence, of Manchester, to discover a plan for utilising this wasted sulphur. His idea is to have a furnace some 40 ft. long and 9 ft. broad, with its bed inclining a little downwards from the chimney end. There is a fireplace at the lowest end, which has no connection with the bed of the furnace, for the heated air from the fire is not carried over the furnace but under it, by a series of flues, and the object of this arrangement is to keep the products of the combustion of the fuel separate from the sulphur expelled from the ore. Well, the upper, or as we may term it, furnace bed receives the ore, which is introduced on its surface at the chimney end. From thence, as it becomes heated, it is drawn towards the lower, or furnace end, and from that end it is, when the calcination shall have been effected, drawn out. Now, the sulphur expelled during the heating of the ore is carried through flues to vitriol chambers, where it collects. By this simple arrangement nearly the whole of the sulphur is saved, and applied for the manufacture of sulphuric acid. Furnaces erected on the principle of Mr. Spence answer entirely the object of their invention, and it cannot be doubted that copper smelters must eventually become the great manufacturers of sulphuric acid. The cost of erecting these furnaces is moderate, and they should at once be adopted by the smelters at Swansea for the first calcination of their sulphuretted copper ores. There are, however, some smelters in England who dispense with this preliminary roasting altogether, and those who adopt the plan simplify the process, and succeed in avoiding the loss which must, to some extent, always accompany the first roasting.

We have now the product of the first operation—a calcined ore, and we next proceed to smelt that ore, and in doing so we mix with it the slag from No. 4 process; and we obtain as a result of the process coarse metal and ore-furnace slag. This coarse metal is brittle, more or less porous, in texture granular, has an uneven fracture, and is usually amorphous. It consists essentially of copper, sulphur, and iron, in the proportions of 33, 33, and 29. The slag, which is called ore-furnace slag, is black, brittle, and acicular, and nearly all of it contains distinct particles of metal. It is essentially a silicate of protoxide of iron. Le Play says that the copper in it exists simply as intermingled regulus; and he lays down the quantity of copper at from 4 to 5 per cent. Now, our ore, which we surmised in the original case to be a sulphuret of (say) 6 per cent. produce, was by the first roasting freed from its excess of sulphur, and by the process just described—the first melting—the earthy impurities have been got rid of, and the bulk of the charge considerably reduced. The slag from No. 4 process was introduced in this melting, as well to be itself cleaned as to supply silica for the succeeding operations. Before tapping, the slag is skimmed from the surface of the coarse metal, and the metal itself is run into water to disintegrate it, and fit it for the next step.

The object of the calcination of the coarse metal, which constitutes the third stage of the operation, is to take out sulphur and put oxygen into the metal. Le Play holds that the sulphur is in this roasting reduced from 29 to 16 per cent.

The fourth process, which is the next in order, is that in which the roasted ore is melted with Australian malachite and refinery slags. The products of the operation are white metal, which we may consider as identical in composition with dioxides of copper and of slag, which is essentially a silicate of iron, and is the slag introduced in the first melting; this slag is black, and highly crystalline. White metal may be considered as coarse metal which has lost all its iron. The white metal may, under a modification of the process, be converted into a blue metal.

Here it is necessary to deviate from the direct course of our subject, to call attention to an intervening operation—where it is necessary from a want of a proper admixture of materials to resort to an extra roasting and melting between the coarse and the white metal, and when there is produced what is called blue metal. This blue metal always contains particles of metallic copper scattered throughout it, which copper cannot have become isolated in the furnace. Le Play considers it is separated by a chemical reaction which takes place between the slag and the regulus after the material has left the furnace. Dr. Percy does not concur in this opinion. An analysis of blue metal will yield about 56 per cent. of copper, 16 per cent. of iron, and 23 per cent. of sulphur.

To return to our white metal, the result of the fourth operation. It is submitted in the next—the fifth operation—to a roasting, which is, as before stated, effected in somewhat different ways in different works. Essentially, however, it consists in a slow melting of the white metal, and in allowing the charge, when thoroughly melted, to cool, and the effect of this cooling is to throw the metal into blisters, which breaking expose the surface of the metal to the air, and thus it becomes oxidised. After a time the temperature is raised, and the oxidised metal at the surface is mixed with the unoxidised portion, and the operation is again repeated until the metal shall become sufficiently oxidised throughout. The resultant from this fifth operation is termed blistered copper.

The last process consists in a melting and keeping of this blistered copper exposed for a long time to the oxidising action of the atmosphere, an action assisted by carbon, and a pole of wood, in the manner we have described. The last trace of iron ore, in this stage, freed from the copper.

We have now to consider briefly the elimination of some of those products common in ores of copper from the metal. And first of arsenic, which is generally present in that admixture of ores smelted at Swansea. For instance, fabler contains it in some quantity, but whether it is in this form that it is present, as in any other combination, it is doubtful whether it is ever perfectly eliminated, and Le Play holds that it is apparent in all the stages of copper smelting. If it occurs more prominently in one stage than another, it is in the regulus in the making of best selected copper. Tin which is commonly associated with copper ores, and especially with those from Cornwall, passes away from the copper into the bottom of the furnaces. No doubt some will always be found in the regulus of copper in the form of sulphide of tin. Silver and gold are both found associated with copper in nature, and the former especially is often in sufficient quantities as to make it worth the while of the smelter to extract it before reducing the copper. The plan usually adopted is to extract it when the copper is in the form of regulus. The copper ores brought from Chili especially are rich in silver. We must, however, defer this branch of our subject until we come to the metal silver, when we will enter into details of the various processes adopted for its separation from copper.

We must now say a few words about Napier's process; and we may de-

scribe it as one founded on the principle of the Cornish mode of copper smelting. Let us suppose we have a mixture of Cornish and Cuban principally sulphides. In this process they were mixed and calcined in the ordinary way, after which they were melted for coarse metal or matte. From the matte the slag was skimmed off, and when the metal was clean, for every ton of metal in the furnace, 100 lbs. of sulphate of soda, 40 lbs. of lime, and 60 lbs. coal slack were added. The charge being thoroughly mixed was melted down, and when molten it was tapped into sand moulds, and as soon as solidified the cakes were thrown into water, by which they become completely disintegrated. The alkaline sulphurets became dissolved, and the regulus was afterwards washed and calcined until sweet—that is, until there was no longer any sulphur evolved. The calcination was effected on a three-bedded calciner and 4 tons constituted a charge of the copper, and with as much silica as was required to form silicate of iron with the oxide of that metal present. The result was blistered copper, which was afterwards refined. The process is now entirely abandoned.

FOREIGN MINING AND METALLURGY.

The official Belgian statistics, published with regard to the export of iron, have undergone a certain modification this year. Thus, in place of the old sub-divisions, we find the four following heads:—Rough pig and old iron, unworried iron, cast-iron work, iron work. The change has not given satisfaction, as the old figures, given more in detail, enabled some conclusions to be drawn which can scarcely be now arrived at. The exports of unworried iron amounted in January to 9233 tons, a total in excess of that for the corresponding month of 1864, which was only 5382 tons. Cast-iron work amounted to 611 tons, against 162 tons in January 1864. Iron work amounted in January to 114 tons; the tables give no comparison with the corresponding month of 1864. The holders of the Belgian General Railway Plant Company have held a second meeting, which stood out in somewhat marked contrast with the preceding gatherings. A report, read by the new director-general, M. Montefiore Levi, exhibited the position of the company in its true light. A valuation has been made by independent persons, completely strangers to the administration, and their estimates have had the result of determining as nearly as possible the real value of the property of the undertaking—the extent of the Clichy establishments, and the fitting workshops in Spain, as well as the extent of works on hand at Antwerp, will enable the administration to devote all its energies to the direction of the Molenebeke works and a fitting workshop at Milan, which alone remain in activity. A financial "combination" has been made to put capital at the disposal of the company. It has been decided that a credit of 90,000*fr.* should be opened to the company during a period of ten years, at an interest of 1 per cent. above the discount rate of the National Bank. The Council of Administration hopes that this capital will suffice to meet the regular course of the company's operations, and all the more so, seeing that they are in some degree reduced to carrying on the Molenebeke workshops. The company has recently obtained orders, the value of which amount to more than 240,000*fr.* In future, the reports of the Council of Administration are to be distributed before the meetings of the proprietors, so that they may be fully considered. This is, without doubt, a useful and wholesome arrangement. The accounts of the Molenebeke Company, brought down to Dec. 31, 1864, show that the net disposable profit is 15,840*fr.*, which enables a second dividend to be paid to the shareholders, at the rate of 1*fr.* 50*c.* This dividend, added to 1*fr.* per share already paid as interest, carries the revenue for 1864 to 11 per cent. on the share capital. The company has long occupied a stable position, the dividends paid during the last 20 years having averaged 10-12 per cent. per annum, although metallurgical industry has during long periods passed through many very different phases, the collieries of the country having contributed to a fair extent to this result. The reserve now amounts to 40,000*fr.*

Affairs revive with much difficulty at St. Dizier. The trade has now arrived at the re-opening of the new season, and the consequent resumption of active work; but the market remains as quiet as it was two months since. Certain works proceed literally from day to day; but one symptom in affairs is that the stock in the forges is insignificant. We have no notable change in the situation; the only important piece of intelligence comes to hand from Paris, and concerns more particularly coke-made iron. Charcoal-made pig remains quoted at 42*fr.* 12*s.* per ton; but at present there is scarcely any enquiry. Iron is quoted by continuation, rolled at 82*fr.* 12*s.* to 82*fr.* 16*s.*, with a scale of 4*s.* per ton per cent; 10*fr.* to 10*fr.* 12*s.* per ton for hammered, according to marks; and 9*fr.* to 9*fr.* 4*s.* for puddled machine iron. The Paris Intelligence, to which allusion is made above, has already been given in substance. Foundry industry complains of a want of activity in affairs; some works have been obliged to lower their tariffs 5 per cent., in order to obtain business.

The foreign copper markets have maintained a favourable appearance. Chilean bars have been dealt in at 87*fr.* 50*c.* to 87*fr.* 60*c.*; 40 tons of disposable, at 87*fr.* 60*c.* per ton, Paris conditions; 157 tons, at 87*fr.* 50*c.* to 87*fr.* 60*c.*, on account; and 250 tons disposable, at 87*fr.* 50*c.* to 87*fr.* 60*c.* per ton. Affairs have not been very animated at Paris; nevertheless, the article remains very firm at former quotations. English in plates making 88*fr.*; Chilean, 83*fr.*; and Corocoro mineral, 86*fr.* per ton. No striking transactions are mentioned at Hamburg; but the market has a better tone. In consequence of advices from England leading to anticipations of a revival in the demand, prices have remained without change. The Cologne and Berlin markets have been quiet at preceding rates. Transactions in tin have been very limited on the Dutch markets. A small lot of 1000 blocks of Banca has been dealt in at Rotterdam at 57*fr.*, as well as 200 blocks at 57*fr.* 50*c.* Affairs have been almost nil at Paris; prices have remained without variation. At Hamburg, also, there has been no great amount of business doing in tin. On the other German markets the purchases made have been entered into almost entirely to meet the requirements of consumption. Lead maintains itself by continuation in the same position. At Hamburg soft German, to be delivered at a future date, may be obtained at prices somewhat below the quoted rates, which, for the rest, have experienced no change. At Berlin business has been done as former times to meet local requirements. There has been a little more enquiry in the Cologne market; at Stettin business has been quiet. Affairs have not presented much animation on the Paris market; rough French remains at 201*fr.* 16*s.* per ton (warrants); Spanish at 222*fr.* 12*s.* per ton. At Rotterdam prices have been nominal. As regards zinc, we may note that, with moderate transactions, rough Silesian maintains itself at 21*fr.* 12*s.* per ton. The Hamburg market has been less animated, and the article has lost a little of the firmness which it acquired in consequence of the feebleness of the London market. Breaux has been quiet, but prices have been tolerably firm.

At Liège the demand for coal continues very satisfactory, but fears are entertained of the effects which may result from the languor which now depresses metallurgical industry. Advices from Charleroi state that former quotations are maintained with facility; stocks are unimportant. At Mons the course of freight and that of coke has not varied. Coke continues in active demand, and is held, first quality from rich coal, at 19*fr.* 24*s.*; and metallurgical coke, washed, at 16*fr.* 9*s.* per ton. A strike is announced among the coal miners of the Bol-du-Lue district. The committee of French coalowners has just published its report on the position of coal mining industry. The coal basins of France may be considered to be divided into three groups, rendered distinct by their geographical position and commercial tendencies—the Northern, the Central, and the Southern. The group of the collieries of the North and of the Pas-de-Calais is characterised by the multiplicity of the beds, and their small thickness; thus the average power of the beds worked scarcely exceeds 2 ft. 2 in. Nearly 200,000 acres of coal earth have already been conceded in this group, and the production now amounts to 3,000,000 tons. This production would be still more considerable if special obstacles did not oppose difficulties to its development. The coal zone of which the basins of the Nord and the Pas-de-Calais form part is, in fact, covered by secondary earths, which are of more or more importance in proportion as an advance is made towards the West. The coal of this group supplies the markets of the North of France concurrently with the Belgian coal, the importation of which in 1863 was 3,225,000 tons, or with English coal, the importation of which was 1,415,000 tons. The group of the Centre, the most important of the three, comprises the basins of the Loire, the Saône-et-Loire, the Allier, the Nievre, the Puy-de-Dôme, &c., all situated on the southern spur of the mountains of central France. They send their products to the Loire, where they meet English coal between Tours and Angers; and the canals of the Centre, of Burgundy, of Brilare, the Yonne, and the Haute-Saône, by which they come as far as Paris; on the Saône and the canal from the Rhone to the Saône, by which they contend on the markets of the East with the Silesian coal; and finally, which are not very numerous, but are often very powerful. They are worked generally at a lower cost than those of the North, but the coal obtained is less pure, and their position is more difficult, having reference to means of communication. The production of this group may be estimated at about 6,000,000 tons annually, of which the basin of the Loire alone produces almost half. The basin of the Loire presents under a surface of 50,000 acres the richest concentration of coal beds existing in France. The South, which is perfectly well defined, supplies southern markets, such as Bordeaux, Toulouse, Marseilles, Toulon, &c., and even exports via the Mediterranean to certain parts of Italy, Algeria, and Spain. The basin of the Gard now extracts 900,000 tons, and the production will soon attain 1,000,000 tons annually. It is at the head of the other basins of the South, the whole production of which scarcely amounts to more than one half. The Aveyron basin appears destined to play a future important role in the French coal trade. Lignite is now used in Marseilles manufactures, and are even devoted to maritime purposes.

ANGLO-GERMAN IRONWORKS.—(Translation).—It has been very freely circulated in the German newspapers published in the district, that a most enterprising Anglo-German company has been formed, with a capital of 1,500,000*fr.* (15 millions guilden), to work the Bilsberg Braunkohle, and establish a large steel factory in Unter Stelmarg; it should, therefore, be distinctly stated that the company, so far as I am aware, connected with the district in question, is not yet established, but is only in the stage of formation. The company, which is to be established, is to be a limited liability company, with a capital of 1,500,000*fr.*, two-thirds of which the vendors have undertaken to obtain in Austria. The Austrian enjoys a reputation which will obtain it a ready sale in any market; but the fact that so large an amount as 1,500,000*fr.* (instead of 50,000*fr.* only) is to be taken from England, is calculated to create an unfavourable impression toward the entire district, if not towards German mines generally.—N. N.

CHEMISTRY OF STEEL CONVERSION.—Some very important facts relative to the nature of the gases developed during the conversion of iron into steel have been indicated in M. Cailliet's Memoir, which has just been presented to the French Academy. M. Cailliet's experiments were carried out at the great factory of Drambois, by permission of MM. Guenard and Company. In order to collect the gases for examination, a hole was bored into one of the cases in which the iron is packed before it is submitted to heat, and into this aperture was fitted a porcelain tube. One of the extremities of this tube was plugged for a depth of 40 centimetres into the case, and to the other end was attached a tube of glass, by means of which the gas was made to traverse a set of bells, and was finally collected in an apparatus specially arranged. After the fire had been burning for five hours, the steel was put in action, and the collected gas analyzed by the simple process devised by M.

The company being "Limited," no shareholder, under any circumstances, can be liable for more than the amount of the shares for which he may subscribe.

Application for shares may be made to the directors, at the offices of the company accompanied by the banker's receipt. Prospectuses, together with reports and forms of application for shares, may be had at the offices of the company.

NICHOLLS, WILLIAMS, AND CO., ENGINEERS,
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 of the public to the manufacture of our BOILERS, which have been tested by most
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 of iron and steel. HAMMERED IRON AND HEAVY SHAFTS OF ANY SIZE.
 CHAINS made of the best iron, and warranted. RAILWAY WORK OF EVERY
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 ALL ORDERS FOR ABROAD RECEIVE THEIR BEST ATTENTION. NICHOLLS,
 WILLIAMS, AND CO. have had 30 years' experience in supplying machinery to foreign
 countries, and selecting experienced workmen to erect the same, where required.
 Messrs. NICHOLLS, WILLIAMS, AND CO. have always a LARGE STOCK OF SECOND-
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 AND HAMMERED IRON FOR MINING, MANUFACTURING,
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 Machinery sent to all parts of the world.
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 COAL COKE, IRONSTONE, and BALLAST WAGONS, have generally a number
 to let for one or more years, including repairs at Rugby, Peterborough, Sherwood,
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 The company build every description of railway wagons and carriages for cash, or by
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 MANUFACTURERS OF FLAT AND ROUND HEMP AND IRON AND STEEL WIRE
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 OF STRENGTH.

Gun Cotton Manufactory.

MESSRS. THOMAS PRENTICE AND CO.,
 GREAT EASTERN CHEMICAL WORKS, STOWMARKET, SUFFOLK.
 This manufactory has been established for the purpose of preparing GUN COTTON,
 according to the Austrian process, and was opened on the 26th of January last, under
 the inspection of Baron Lenk. Messrs. Thomas Prentice and Co. are now able to
 SUPPLY GUN COTTON, in its most approved form, either for the purposes of engineering
 and mining, or for military and submarine explosion, and for the service of
 artillery, as a substitute for gunpowder.

The advantages of Baron Lenk's GUN COTTON are the following:—
 For FUSION OR ARTILLERY.—The same initial velocity of the projectile can be obtained
 by a charge of gun cotton one-fourth of the weight of gunpowder. There is no
 smoke from the explosion of gun cotton; it does not foul the gun, nor heat it to the in-
 jurious degree of gunpowder. There is much smaller recoil of the gun. The same initial
 velocity of projectile is produced, with a shorter length of barrel. In projectiles of the
 nature of explosive shells it breaks the shell more equally into much more numerous
 pieces than gunpowder. When used in shells, one-third the weight of gun cotton pro-
 duces double the explosive force of gunpowder.

For CIVIL ENGINEERING AND MINING.—In driving tunnels through hard rock a charge
 of gun cotton of given size exerts double the explosive force of gunpowder, thus a smaller
 quantity of material is necessary. It may be so used as, in its explosion, to reduce the rock
 to much smaller pieces than gunpowder, and so facilitate its removal. As gun cotton
 produces no smoke, the work can proceed much more rapidly, and with less injury to the
 health of the miners. In working coal mines the advantages of bringing down much
 larger quantities of material with a given charge, and the absence of smoke in the ex-
 plosion, enable a much greater quantity of work to be done in a given time at a given
 cost. The weight of gun cotton required to produce a given effect in mining is only
 one-sixth part of the weight of gunpowder. In blasting rock under water the wider range
 and greater force of a given charge is a great element in cheapening the cost of submarine
 work. The peculiar local action of gun cotton, to which the effects of gunpowder show
 no analogy, enables the engineer to destroy and remove submarine stones and rocks,
 without the preliminary delay and expense of boring chambers for the charge.

For MILITARY ENGINEERING.—The facility of transport is increased, the weight of
 gun cotton being one-sixth that of gunpowder. The peculiar local action of gun cotton
 facilitates the destruction of bridges and palisades, and every obstacle. For submarine
 explosion, gun cotton has the advantage of a much wider range of destructive
 power than gunpowder. For the same purpose gun cotton, from its lightness, has the ad-
 vantage of keeping aloft the water-tight case in which it is contained, while gunpowder
 sinks to the bottom.

For NAVAL WARFARE.—In the batteries of ships, between decks, and in casemated
 forts, the absence of smoke facilitates continuous rapid firing. The absence of fouling
 and of heating are equally advantageous for naval as for military artillery.

GENERAL ADVANTAGES.—Time, damp, and exposure do not alter the qualities of the
 patent gun cotton. It has already been preserved 10 years without injury or decay.
 It can be transported through fire without danger, simply by being wetted, and when
 dried in the open air it becomes as good as before. In the case of a ship, or a fortress, or
 gun being on fire, this quality may be the greatest value. It is much safer than gun-
 powder, owing to its being manufactured in the shape of rope or yarn. It cannot escape
 from its package, or be spilled by accident. The patent gun cotton is entirely free from
 the danger of spontaneous combustion, and secures that degree of safety and certainty
 which, at the time of the original invention, the gun cotton of Schölenberg did not possess.

Messrs. THOMAS PRENTICE AND CO. are now in a position to contract with the owners
 of mines, engineers, contractors, and governments for gun cotton prepared in the various
 forms required for their use. Mining charges will be supplied in the rope form, accord-
 ing to the diameters of bore required, and gun cotton match-lines, as well as instructions
 for using it in mines, will be supplied with it.

The great advantage of gun cotton makes its use in practice very much cheaper than
 its comparative price would appear to show; in blasting rock, for example, the rapidity
 and quantity of the work done, with a given expense of wages, &c., is largely in favour
 of gun cotton.

Messrs. THOMAS PRENTICE AND CO. are also prepared to manufacture the gun cotton,
 and deliver it in the form of gun cartridges, adapted to every description of ammunition;
 all they require for this purpose being a drawing of the gun, gunpowder cartridges, and
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Artillerists who prefer to manufacture their own cartridges may make special arrange-
 ments with the patentees through Messrs. PRENTICE AND CO.
 Stowmarket, March 10 1864.

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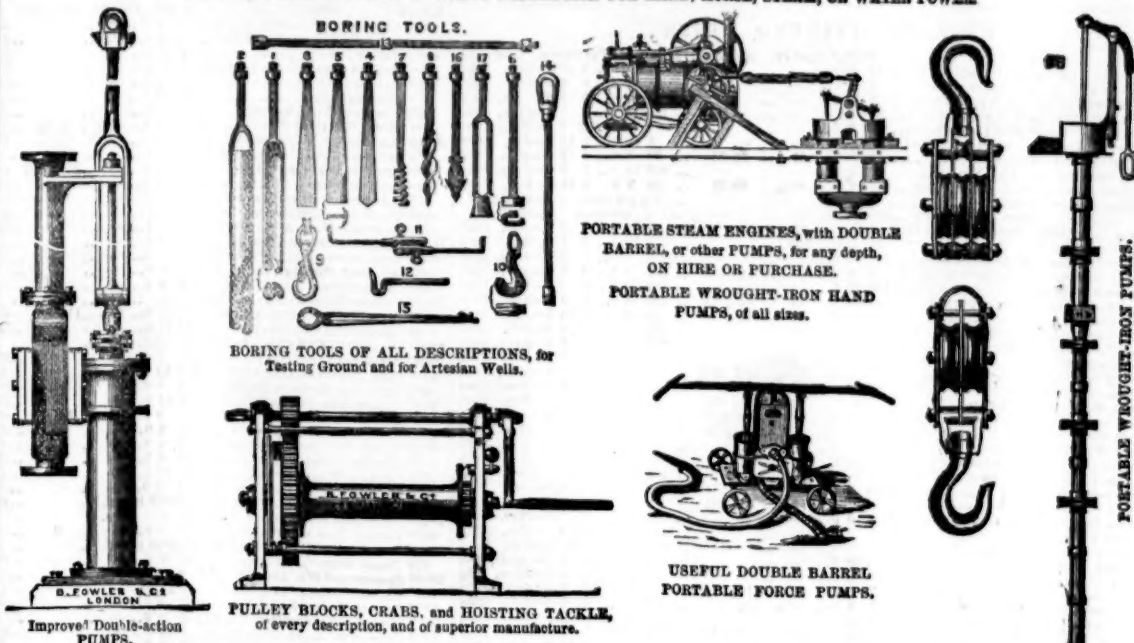
THE STOCKTON AND HARTLEPOOL MERCURY AND
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 districts of South Durham and Cleveland, with which it has been closely identified since
 its origin. The "Mercury" was for years the only newspaper published in South Dur-
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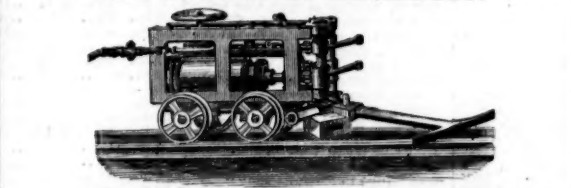


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COAL CUTTING MACHINERY.
 The WEST ARDSLEY COMPANY having, by recently patented improvements,
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 The results of twelve months' experience in the working of these machines, by the
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 such INFRINGEMENT is MADE.

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 without interfering with the eccentricity and valve gear, which are of the usual simple
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 for SUPERSEDING THE SLOW AND EXPENSIVE USE OF MANUAL LABOUR
 IN SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., is guaranteed to
 drive through any rock of average hardness at a minimum rate of 1 ft. per diem, and
 to sink shafts at the rate of 2 fms. in three days.
 Mr. CREASE will undertake contracts for sinking shafts, driving levels, &c., at an en-
 ormous reduction of time and great saving in cost.
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THE CLUTCH SAFETY CAGE, IMPROVED.
 The improvement consists in its having only a single spring, which is strong
 enough to take the lift of the loaded cage; to overhaul the broken rope, however distant
 the fracture may be; and yet so conditioned that it cannot bring the clutches into play
 till the rope is broken. It is an ordinary carriage spring, and can be replaced, when
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 the safety clutch with their own improvements are respectfully informed that liberty
 to do so will be granted to them on easy terms.—Apply to the patentee, ROBERT ATTOUT,
 3, Fettes-row, Edinburgh.

International Exhibition, 1862—Prize Medal.

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BICKFORD'S PATENT SAFETY-FUSE OBTAINED THE
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 TIONAL EXHIBITION of 1862, in London, and at the IMPERIAL EXPOSITION
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BICKFORD, SMITH, AND CO.,
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 name of their firm has been attached to (and not of their ma-
 nufacture, beg to call the attention of the trade and public to
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 DER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE
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Prize Medals—International Exhibition, Class 1 and 2.

PATENT PLUMBAGO CRUCIBLES.

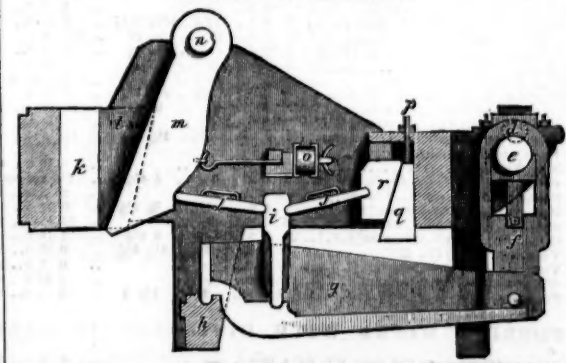
The CRUCIBLES manufactured by the PATENT PLUMBAGO CRUCIBLE
 COMPANY are the ONLY KIND for which a MEDAL has
 been AWARDED, and are now used exclusively by the English,
 Australian, and Indian Mints; the French, Russian, and other
 Continental Mints; the Royal Armories of Woolwich, Brest,
 and Toulon, &c.; and have been adopted by most of the large
 ENGINEERS, BRASSFOUNDERS, and REFINERS in this
 country and abroad. The GREAT SUPERIORITY of these
 melting pots consists in their capability of melting on an average
 40 pourings of the most difficult metals, and a still greater num-
 ber of those of an ordinary character, some of them having ac-
 tually reached the EXTRAORDINARY NUMBER of 96 melt-
 ings. They are unaffected by change of temperature, never
 crack, and become heated much more rapidly than any other
 crucibles. In consequence of their great durability, the saving
 of waste is also very considerable.

The company have recently introduced CRUCIBLES SPECIALLY ADAPTED for
 the following purposes, viz.:—MALLEABLE IRON MELTING, the average working
 of which has proved to be about seven days; STEEL MELTING, which are found to
 save nearly 1 1/4 ton of fuel to every ton of steel fused; and for ZINC MELTING, lasting
 much longer than the ordinary iron pots, and saving the great loss which arises from
 mixture with iron.

The Patent Plumbago Crucible Company likewise manufacture and import Clay Cru-
 cibles, Muffles, Portable Furnaces, &c., Stove Backs, all descriptions of fire-standing
 goods, and every requisite for the Assayer and Dentist.

For lists, testimonials, &c., apply to the Patent Plumbago Crucible Company, Batter-
 sea Works, London, S.W.

BLAKE'S PATENT STONE BREAKER,
 OR ORE CRUSHING MACHINE,
 FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND
 MINERALS OF EVERY KIND.



It is rapidly making its way to all parts of the globe, being now in profitable use in
 California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the
 United States and England.

The above section illustrates Blake's Stone Breaker, just as made the last five years
 and is fully protected in every part by patents.
 Extract from Specification:—A short but powerful vibration is imparted to one or
 both of the jaws by any convenient arrangement, and combination of powerful levers,
 worked by a crank or eccentric on the main shaft.

LEGAL PROCEEDINGS will be taken at once against any person or persons found
 making, using, or vending any machine, the construction of which will constitute an in-
 fringement on the above patent. Read extracts of testimonials:—

Atkins Works, near Wednesbury.—I at first thought the outlay too much for so simple
 an article, but now think it money well spent. WILLIAM HURT.
 Welsh Gold Mining Company, Dolgelly.—The stone breaker does its work admirably,
 crushing the hardest stones and quartz. WM. DANIEL.
 One 15 by 7 in. machine has broken 4 tons of hard winstone in 20 minutes, for fine
 road metal, free from dust.

Kirkless Hall, near Wigan.—Each of my machines breaks from 100 to 120 tons of
 limestone or ore per day (10 hours), at a saving of 4d. per ton. JOHN LANCHESTER.
 Orocra, Ireland.—My crusher does its work most satisfactorily. It will break 10 tons
 of the hardest copper ore stone per hour. WM. G. ROBERTS.

General Fremont's Mines, California.—The 15 by 7 in. machine effects a saving of
 the labour of about 30 men, or \$75 per day. The high estimation in which we hold
 your invention is shown by the fact that Mr. Park has just ordered a third machine for
 this estate. STEPHEN WILLIAMS.

For circulars and testimonials, apply to—
H. R. MARSDEN, SOHO FOUNDRY,
 MEADOW LANE, LEEDS.
 Only maker in the United Kingdom.

NEW MEDICAL GUIDE.

DR. SMITH, who has had twenty years' practical experience in the
 treatment of Debility, Spermatorrhoea, Disorders of the Nervous System, &c.,
 has published A GUIDE (138 pages) for Self-Cure. Sent to any address on receipt of
 two stamps. DR. SMITH may be consulted personally (or by letter) in all private and
 confidential cases.—Address, SMITH AND CO., 8, Burton-crescent, Euston-road, London
 W.C. Consultations daily from Eleven to Five.

THE MINING SHARE LIST

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last Paid.
1900 Alderley Edge (cop.), Cheshire [L.]	10 0 0	—	—	—	11 3 0	0 15 0—Oct. 1884
4000 Bedford United (copper), Tavistock	2 0 0	—	—	—	13 11 0	0 2 0—Oct. 1884
1248 Boswell (tin), Devon [L.]	2 0 0	—	—	—	1 0 0	0 0 0—May, 1884
1200 Botolph Claydon (tin), Devon [L.]	2 0 0	—	—	—	47 15 0	0 0 0—Nov. 1884
1600 Brixham Hematite Iron [L.]	6 7 0	—	—	—	6 10 0	0 15 0—Jan. 1885
6000 Brynford (lead), Cardigan [L.]	12 0 0	—	—	—	10 0 0	0 15 0—Jan. 1885
916 Cargill (silver-lead), Newlyn	15 8 7	32	33 35	—	10 0 0	0 15 0—Jan. 1885
1000 Carn Brea (copper), tin, Illogan	15 0 0	—	—	—	280 10 0	0 0 0—June, 1884
2880 Clifton Amalgamated (cop.), Gwent	30 0 0	30 31	—	—	34 3 0	0 12 0—Feb. 1885
2000 Copper Mines of England	25 0 0	—	—	—	7 1/2 per cent.	—Half-yrly.
40000 Cwm Ddud (stock)	100 0 0	—	—	—	1 per cent.	—Half-yrly.
847 Darnall (lead), Cardiganshire [L.]	7 10 0	—	—	—	14 18 0	0 0 0—Mar. 1885
128 Cwynatwith (lead), Cardiganshire	60 0 0	150	—	—	275 10 0	0 4 0—Jan. 1885
280 Dwynton (tin), Devon [L.]	2 0 0	—	—	—	129 0 0	0 0 0—Jan. 1885
1224 Devon Gt. Con. (cop.), Tavistock [S.E.]	1 0 0	—	—	—	962 0 0	0 0 0—Jan. 1885
868 Dolcoath (copper), tin, Camborne	129 17 6	—	—	—	786 10 0	0 0 0—Feb. 1885
512 East Basset (cop.), Redruth [S.E.]	29 10 0	15	22 1/2	25	128 0 0	0 0 0—Nov. 1884
6144 East Caradon (copper), tin, Clever [S.E.]	2 14 6	15	14 1/2	15	12 12 0	0 10 0—Jan. 1885
800 East Darnall (lead), Cardiganshire	32 0 0	—	—	—	103 10 0	0 0 0—Feb. 1885
428 East Pool (tin), copper, Pool, Illogan	24 5 0	—	—	—	369 10 0	0 4 0—Jan. 1885
5000 East Rosewarne (cop., tin), Gwre	2 15 0	2 1/2	—	—	0 4 0	0 2 0—Feb. 1885
1906 East Wheel Lovell (tin), Wendron	2 13 0	1 1/2	12 1/2	13 1/2	1 10 0	0 16 0—May, 1885
2800 Foxdale (lead), Devon [L.]	2 0 0	—	—	—	86 0 0	0 0 0—Mar. 1885
2800 Frank Mills (lead), Devon [L.]	2 0 0	—	—	—	2 0 0	0 0 0—Feb. 1885
13000 Great Laxey (lead), Isle of Man [L.]	4 0 0	—	—	—	16 1 0	0 10 0—Mar. 1885
5906 Great Wh. Vor (tin), Helston [S.E.]	40 0 0	—	—	—	6 2 0	0 15 0—Jan. 1885
119 Great Work (tin), Gernoe	100 0 0	—	—	—	15 0 0	0 0 0—Aug. 1884
1024 Herodsfoot (id.), near Liskeard [S.E.]	8 10 0	—	—	—	31 10 0	0 15 0—Feb. 1885
400 Lishorne (lead), Cardiganshire, Wales	18 15 0	160	—	—	430 10 0	0 3 0—Feb. 1885
2000 Maes-y-Safn (lead) [L.]	20 0 0	—	—	—	1 0 0	0 0 0—Feb. 1885
2000 Marks Valley (copper), Cardigan	4 10 0	5 1/2	5 1/2	5 1/2	2 18 0	0 2 0—Jan. 1885
2000 Miners Boundary (lead), Wrexham [L.]	1 0 0	—	—	—	0 6 0	0 0 0—Mar. 1885
1800 Miners Mining Co. (L.) (id.), Wrexham	25 0 0	—	—	—	169 18 0	0 7 0—Feb. 1885
20000 Mining Co. of Ireland (cop., lead, coal)	7 10 0	—	—	—	16 19 7	12 3 0—Jan. 1884
40000 Mynydd (tin ore) [L.] [S.E.]	2 0 0	—	—	—	16 1 0	0 10 0—Mar. 1885
250 Nanty Mine (lead), Montgomery	20 0 0	—	—	—	7 1 0	0 1 0—June, 1884
6000 New Birch Tor and Wilfer Con. (tin)	1 6 0	—	—	—	0 11 0	0 1 0—Oct. 1884
8926 North Trekerby (copper), tin, Agnes	1 0 0	2 1/2	2 1/2	2 1/2	0 13 0	0 2 0—Feb. 1884
2000 Parys Mines (copper), Anglesey [L.]	50 0 0	—	—	—	135 0 0	0 12 0—Jan. 1885
1123 Providence (tin), Uny Lelant [S.E.]	10 6 7	31	30 32	—	76 5 0	0 1 0—Feb. 1885
30 Silver Lake Mining Company	280 0 0	—	—	—	—	—2 10 0—Dec. 1884
612 South Caradon (cop., tin), Clever [S.E.]	1 5 0	—	—	—	467 10 0	0 8 0—Jan. 1885
8000 St. Day United (tin), Redruth	14 0 0	—	—	—	0 5 0	0 0 0—Mar. 1884
840 St. Ives Consols (tin), St. Ives	8 0 0	—	—	—	490 10 0	0 10 0—May, 1884
6000 Tinor (cop., tin), Pool, Illogan [S.E.]	2 0 0	15 1/2	14 1/2	15	16 1 0	0 10 0—Dec. 1884
6000 West Basset (copper), Illogan [S.E.]	1 10 0	—	—	—	26 3 0	0 0 0—Jan. 1885
W. Chiverton (id.), Perranzabuloe [S.E.]	—	62	57 1/2	62 1/2	4 10 0	0 15 0—Feb. 1885
286 West Damsel (copper), Gwennap	38 10 0	—	—	—	83 10 0	0 1 0—Nov. 1884
400 W. Wh. Seton (cop.), Camborne [S.E.]	47 10 0	195	180 190	—	425 0 0	0 4 0—Feb. 1885
512 Wheel Basset (copper), Illogan [S.E.]	5 2 0	105	100 105	—	606 10 0	0 2 0—Feb. 1885
512 Wheel Jane (silver-lead), Kea	3 10 0	—	—	—	15 0 0	0 10 0—Aug. 1884
4296 Wheel Kitty (tin), Agnes	5 4 0	—	—	—	2 6 0	0 0 0—Feb. 1885
1024 Wheel Kitty (tin), Uny Lelant [S.E.]	2 0 0	—	—	—	10 2 0	0 6 0—July, 1884
1024 Wh. Mary Ann (id.), Menheniot [S.E.]	2 0 0	—	—	—	59 17 0	0 10 0—Mar. 1885
100 Wheel Mary (tin), Lelant	36 2 0	—	—	—	288 5 0	0 4 0—May, 1884
80 Wheel Owles (tin), St. Just, Cornwall	70 0 0	—	—	—	243 3 0	0 5 0—Mar. 1884
396 Wheel Seton (tin), copper, Camborne	58 10 0	202 1/2	200 205	—	191 15 0	0 4 0—Feb. 1885
1040 Wh. Trevelyan (id.), Liskeard [S.E.]	6 17 0	20	19 20	—	61 10 0	0 12 0—Mar. 1885
7000 Wicklow (copper) [L.]	20 10 0	—	—	—	14 17 0	0 0 0—Oct. 1884

† Dividends paid every two months. † Dividends paid every three months.

BRITISH MINES WITH DIVIDENDS IN ABEYANCE.

340 Boscan (tin), St. Just	20 10 0	—	—	—	36 10 0	1 0 0—Mar. 1882
3000 Chiverton (lead), Perranzabuloe [S.E.]	6 0 0	—	—	—	85 0 0	2 0 0—June, 1882
286 Condurrow (cop., tin), Camborne	10 0 0	—	—	—	1 7 0	0 7 0—Mar. 1882
2800 Cook's Kitchen (copper), Illogan	18 9 0	6	47 1/2	52 1/2	2 7 0	—Sept. 1882
1024 Copper Hill (copper), Redruth	12 0 0	—	—	—	7 12 0	0 4 0—July, 1882
1058 Craddock Moor (copper), tin, Clever	8 0 0	—	—	—	0 10 0	0 2 0—Feb. 1882
4076 Devon and Cornwall (cop.), Tavistock	6 2 0	—	—	—	0 18 0	0 1 0—May, 1882
12800 Drake Walls (tin), copper, Calstock	2 1 0	—	—	—	0 17 0	0 2 0—Jan. 1882
8000 Dyffryn (lead), Wales	12 6 0	—	—	—	41 9 0	0 2 0—June, 1880
940 Fowey Consols (copper), Twardreath	4 7 0	—	—	—	7 18 0	0 8 0—Dec. 1881
6000 Great South Tolu (copper), Redruth	0 14 6	3 1/2	2 1/2	—	0 3 0	0 1 0—Mar. 1882
10240 Gannialake (Chitlers' Adit) (copper)	0 0 0	—	—	—	109 1 0	0 0 0—May, 1882
160 Lead Mine (cop., tin), St. Just	2 0 0	—	—	—	18 18 1	0 7 0—Aug. 1882
640 Mount Pleasant (lead), Mold	4 0 0	—	—	—	0 10 0	0 4 0—Mar. 1882
000 Oradell (lead), Flintshire	0 0 0	—	—	—	0 10 0	0 2 0—Mar. 1882
6400 Par Consols (cop.), St. Blazey [S.E.]	1 2 0	—	—	—	7 19 6	0 10 0—Nov. 1882
1712 Polberron (tin), St. Agnes	15 0 0	—	—	—	1 0 0	0 1 0—July, 1882
512 Polberron (tin), St. Agnes	8 0 0	—	—	—	0 10 0	0 1 0—June, 1882
8000 Rosewell Hill and Ransom United	3 1 0	—	—	—	0 5 0	0 0 0—Dec. 1882
8000 South Exmouth (lead), Christow	2 2 0	—	—	—	74 10 0	1 0 0—May, 1882
512 South Tolu (cop.), Redruth	8 0 0	23	20 23	—	370 18 0	1 0 0—Nov. 1882
486 S. Wh. Frances (cop.), Illogan [S.E.]	18 18 0	—	—	—	9 15 0	0 0 0—Sept. 1882
2800 Spermator (cop., tin), St. Just	32 17 0	—	—	—	11 0 0	0 2 0—Mar. 1882
872 Trevelyan Consols (tin), St. Ives	11 10 0	—	—	—	6 2 0	0 10 0—Mar. 1882
1000 Trumpet Consols (tin), near Helston	11 0 0	—	—	—	8 15 0	1 0 0—Jan. 1881
4024 Vigra and Clogau (copper) [L.]	5 0 0	—	—	—	14 10 0	0 3 0—June, 1881
1024 Wendron Consols (tin), Wendron	30 13 0	—	—	—	101 1 3	0 10 0—Oct. 1881
60 West Burton Gill (lead), Yorkshire	60 0 0	—	—	—	3 0 0	0 10 0—Oct. 1881
1024 West Caradon (cop.), Liskeard [S.E.]	9 0 0	—	—	—	295 10 0	0 5 0—Feb. 1881
1000 Wheel Basset and Grylls (tin)	7 0 0	—	—	—	76 8 0	1 0 0—May, 1881
896 Wheel Margaret (tin), Uny Lelant	18 17 0	—	—	—	0 19 0	0 3 0—May, 1881
2044 Wheel Trevelyan (tin), Gwennap	2 11 0	—	—	—	—	—0 0 0—Jan. 1881
6400 West Fowey Consols (tin and copper)	70 10 0	—	—	—	—	—0 0 0—Jan. 1881
8000 Wharfedale Mining Company [L.]	0 5 0	—	—	—	—	—0 0 0—Jan. 1881

FOREIGN DIVIDEND MINES.

20000 Australian (cop.), S. Australia [S.E.]	7 7 6	—	—	—	0 1 0	0 1 0—Dec. 1883
2484 Burras (cop.), South Australia	8 0 0	—	—	—	320 0 0	0 8 0—Sept. 1884
8000 Central American (silver) [L.]	7 0 0	—	—	—	4 0 0	0 10 0—Dec. 1883
150000 Cape Copper (tin), S. Africa [S.E.]	7 0 0	—	—	—	0 10 0	0 1 0—Jan. 1884
120000 Cobre Copper (cop.), Cuba [S.E.]	27 0 0	—	—	—	101 0 0	0 1 0—Jan. 1884
100000 Don Pedro No. Del Rey [L.] [S.E.]	0 12 6	—	—	—	0 9 0	0 9 0—Dec. 1883
70000 English and Australian	8 0 0	—	—	—	1 12 0	0 2 0—Aug. 1884
18000 East Indian Coal, Calcutta [L.]	10 0 0	—	—	—	7 1/2 per cent.	—Yearly.
20000 Fortuna (lead), Spain [L.] [S.E.]	2 0 0	3 1/2	2 1/2	3 1/2	0 14 0	0 3 0—June, 1884
20000 Gen. Mining Assoc., Nova Scotia [S.E.]	20 0 0	24	22 24	—	21 10 0	1 0 0—June, 1884
80000 Kapunda Mining Co., Australia [S.E.]	1 0 0	—	—	—	0 12 0	0 1 0—June, 1884
18000 Linares (lead), Spain [L.] [S.E.]	3 0 0	—	—	—	11 8 0	0 4 0—Jan. 1885
100000 Lusitania (Portugal) [L.]	2 0 0	—	—	—	3 4 0	0 2 0—Jan. 1885
9275 New Widdow (copper)	2 0 0	—	—	—	0 10 0	0 10 0—Aug. 1884
80000 Pampulillo (copper) [L.] [S.E.]	3 0 0	4 1/2	4 1/2	—	7 1/2 per cent.	—Yearly.
100000 Pontbarrad (all-lead), France [S.E.]	230 0 0	—	—	—	2 3 0	0 16 0—Dec. 1884
97800 Port Phillip (gold), Clunes [S.E.]	1 0 0	—	—	—	0 12 0	0 1 0—July, 1884
11000 St. John del Rey [L.] [S.E.]	15 0 0	—	—	—	63 15 0	0 2 0—Jan. 1884
41874 United Mexican (all-lead), Mexico [S.E.]	28 5 0	—	—	—	3 19 0	0 5 0—Sept. 1884
10000 Vancouver (coal) [L.]	1 0 0	—	—	—	0 15 0	0 5 0—Nov. 1884
80000 Victoria (London) Mining Co. [L.]	1 0 0	—	—	—	0 7 0	0 3 0—Jan. 1884
20000 West Canada Mining Company [L.]	1 0 0	—	—	—	0 17 0	0 8 0—Dec. 1884
45000 Yndamutana (cop.), S. A. [L.] [S.E.]	3 0 0	—	—	—	0 5 0	0 5 0—Aug. 1883

FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

10000 Alten and Quenangen Uni. (cop.) [L.] [S.E.]	4 10 0	—	—	—	4 5 0	0 15 0—Nov. 1883
10000 Copago Mining Company, Chili [S.E.]	3 0 0	—	—	—	6 18 0	0 10 0—Nov. 1883
10000 Gt. Barrick and Min. Co., N. Y. [S.E.]	0 0 0	—	—	—	15 per cent.	—Nov. 1883
10816 Mariquita and New Granada [S.E.]	1 0 0	—	—	—	0 9 0	0 1 0—July, 1883

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
80000	Alamillos (lead), Spain [L. £2] [S.E.]	1 5 0	1 1/2	1 1/2	Sept. 1884
100000	Anglo-Brazilian (gold) [L.] [S.E.]	0 5 0	..	..	Dec. 1883
90000	Bauria Tin Streaming Company [L. £1]	0 17 6	..	..	Oct. 1884
20000	Capila (silver), Mexico [L.] [S.E.]	1 5 0	1 1/2	1 1/2	Feb. 1884
17000	Central Italian (copper) [7000 £3 paid]	0 6 0	..	..	Jan. 1885
10000	Copiapó Smelting [L.], Chili	10 0 0	..	..	Fully paid.
75000	Dan Mountain (copper), New Zealand [L.] [S.E.]	1 0 0	..	..	Fully paid.
80000	East del Rey (gold), Brazil [L. £3] [S.E.]	2 0 0	1 1/2	1 1/2	Feb. 1885
18000	El Chico Silver Mining and Reduction Company [L. £5]	3 0 0	..	..	Fully paid.
80000	English and Canadian Mining Company [L.]	5 0 0	..	..	Fully paid.
40000	Fortuna (copper), West Australia [L.]	2 0 0	..	..	Fully paid.
80000	Frontino and Bolivia (gold), New Granada [L. £2] [S.E.]	1 0 0	..	..	Mar. 1885
80000	Great Northern (copper), South Australia [L. £2] [S.E.]	1 10 0	..	..	June, 1882
24000	Hindustan (copper), Bengal [L.] [S.E.]	3 0 0	..	..	Feb. 1885
40000	Hope Silver-Lead and Copper Mining Co. [L.] [S.E.]	25 0 0	..	..	Fully paid.
180000	Lagunazo (sulphur, copper), Portugal [L.]	1 0 0	..	..	Jan. 1885
100000	Montes Aures (gold), Brazil [L.] [S.E.]	2 0 0	3/4	3/4	Fully paid.
80000	Nova Scotia (land and gold) [L. £2]	1 0 0	..	..	Nov. 1882
10000	Orea (copper) New Zealand [L. £2]	0 15 0	..	..	Sept. 1884
15000	Pacheco Silver Mining Company, Mexico [L. £1]	1 0 0	..	..	June, 1883
6000	Peel River Land and Mineral [Limited]	100 0 0	..	..	Stock.
23000	Quebrada (copper), Venezuela [L. £10]	6 10 0	5	5 1/2 6 1/2	Sept. 1884
80000	Rio Grande (gold), Brazil [L. £1] [S.E.]	0 0 0	..	..	April, 1884
10000	Ran Raque (lead), Spain	0 0 0	..	..	Fully paid.
40000	Santa Barbara (gold), Brazil [L. £1]	0 15 0	..	3/4 3/4	Sept. 1884
120000	Scottish Australian Mining Company [L. £1]	0 17 6	..	..	Feb. 1884
16000	South Europe Mining Company, Spain [L. £5]	5 0 0	..	..	Fully paid.
12000	Teplitz Colliery Co., Bohemia [L. £5]	3 0 0	..	..	June, 1883
5000	Valgodemard Mining Company [L. £20]	10 0 0	..	..	Oct. 1884
50000	Vallanussau (gold), Italy [L. £1] [S.E.]	1 0 0	1 1/2	1 1/2 1 1/2	Oct. 1884
45000	Vittorio Emanuele (copper), Italy [L.]	0 10 0	..	..	Fully paid.
2000	Washoe (gold) [1000 £2 paid, 1000 £3 paid]	0 0 0	..	..	..
1000	Western Africa Maichite (copper) [L.]	110 0 0	..	..	Oct. 1889
12000	Wheel Ellen (copper), South Australia [L.]	5 0 0	..	..	Fully paid.
90000	Worthing (copper), South Australia [L.] [S.E.]	1 0 0	..	3/4 3/4	Fully paid.
78000	Yorke Peninsula, South Australia [L. £1]	1 0 0	..	..	Fully paid.